



# GuideMyGrades

— YOUR GOALS. OUR EXPERTISE. —

EDEXCEL INTERNATIONAL A LEVEL ECONOMICS: QUESTIONS BY TOPIC

## Revenue, costs and profits (3.3.2)

**International A Level Economics · Unit 3: Business behaviour**

60 questions · 285 marks · Mark schemes included  
Past papers January 2020 - June 2025 · 4 specification sub-topics

 [guidemygrades.com](https://guidemygrades.com)

 [@Guidemygrades](https://www.instagram.com/Guidemygrades)

 [@Guidemygrades](https://twitter.com/Guidemygrades)

 [@Guidemygrades](https://www.youtube.com/Guidemygrades)

 [info@guidemygrades.com](mailto:info@guidemygrades.com)

 Piccadilly Business Centre, Unit C, Aldow Enterprise Park  
Blackett Street, Manchester, M12 6AE

**HOW TO USE THIS BOOKLET**

Questions are grouped by specification sub-topic and run from the lowest to the highest mark tariff, then oldest paper first.

Click any row below to jump straight to that sub-topic or question.

On every question page, click ANSWER in the top-right corner to jump to its mark scheme; < QUESTION brings you back.

Whenever a question refers to an extract, figure or table, those exact pages are printed immediately before it ("extracts & data").

A gold bar in the left margin marks exactly where the question sits on the original page.

Diagrams, graphs, tables and data are printed exactly as they appear in the original papers.

| QUESTION               | SOURCE                  | MARKS            | PAGE      |
|------------------------|-------------------------|------------------|-----------|
| <b>3.3.2.1 REVENUE</b> |                         | 12 Qs · 22 marks | <b>3</b>  |
| 1. <b>Q6</b>           | IAL Unit 3 January 2021 | 1                | <b>4</b>  |
| 2. <b>Q3</b>           | IAL Unit 3 January 2022 | 1                | <b>5</b>  |
| 3. <b>Q2</b>           | IAL Unit 3 January 2024 | 1                | <b>6</b>  |
| 4. <b>Q6</b>           | IAL Unit 3 October 2024 | 1                | <b>7</b>  |
| 5. <b>Q6</b>           | IAL Unit 3 January 2025 | 1                | <b>8</b>  |
| 6. <b>Q6</b>           | IAL Unit 3 June 2025    | 1                | <b>9</b>  |
| 7. <b>Q7(a)</b>        | IAL Unit 3 October 2020 | 2                | <b>10</b> |
| 8. <b>Q7(a)</b>        | IAL Unit 3 June 2022    | 2                | <b>14</b> |
| 9. <b>Q7(a)</b>        | IAL Unit 3 June 2023    | 2                | <b>18</b> |
| 10. <b>Q7(a)</b>       | IAL Unit 3 October 2023 | 2                | <b>22</b> |
| 11. <b>Q7(a)</b>       | IAL Unit 3 June 2025    | 2                | <b>26</b> |
| 12. <b>Q7(d)</b>       | IAL Unit 3 January 2020 | 6                | <b>30</b> |
| <b>3.3.2.2 COSTS</b>   |                         | 20 Qs · 66 marks | <b>35</b> |
| 13. <b>Q3</b>          | IAL Unit 3 June 2021    | 1                | <b>36</b> |
| 14. <b>Q5</b>          | IAL Unit 3 June 2021    | 1                | <b>37</b> |
| 15. <b>Q4</b>          | IAL Unit 3 October 2021 | 1                | <b>38</b> |
| 16. <b>Q3</b>          | IAL Unit 3 June 2022    | 1                | <b>39</b> |
| 17. <b>Q1</b>          | IAL Unit 3 January 2023 | 1                | <b>40</b> |
| 18. <b>Q2</b>          | IAL Unit 3 January 2023 | 1                | <b>41</b> |
| 19. <b>Q5</b>          | IAL Unit 3 October 2023 | 1                | <b>42</b> |
| 20. <b>Q2</b>          | IAL Unit 3 June 2024    | 1                | <b>43</b> |
| 21. <b>Q4</b>          | IAL Unit 3 October 2024 | 1                | <b>44</b> |
| 22. <b>Q4</b>          | IAL Unit 3 June 2025    | 1                | <b>45</b> |
| 23. <b>Q7(a)</b>       | IAL Unit 3 January 2021 | 2                | <b>46</b> |
| 24. <b>Q7(a)</b>       | IAL Unit 3 January 2023 | 2                | <b>50</b> |
| 25. <b>Q7(a)</b>       | IAL Unit 3 June 2024    | 2                | <b>54</b> |
| 26. <b>Q7(a)</b>       | IAL Unit 3 October 2024 | 2                | <b>58</b> |
| 27. <b>Q7(c)</b>       | IAL Unit 3 January 2020 | 8                | <b>62</b> |
| 28. <b>Q7(d)</b>       | IAL Unit 3 October 2022 | 8                | <b>67</b> |
| 29. <b>Q7(d)</b>       | IAL Unit 3 January 2023 | 8                | <b>72</b> |
| 30. <b>Q7(d)</b>       | IAL Unit 3 October 2023 | 8                | <b>77</b> |
| 31. <b>Q7(c)</b>       | IAL Unit 3 January 2024 | 8                | <b>82</b> |
| 32. <b>Q7(d)</b>       | IAL Unit 3 January 2025 | 8                | <b>87</b> |



| QUESTION                                           | SOURCE                  | MARKS             | PAGE       |
|----------------------------------------------------|-------------------------|-------------------|------------|
| <b>3.3.2.3 ECONOMIES AND DISECONOMIES OF SCALE</b> |                         | 9 Qs · 49 marks   | <b>93</b>  |
| 33. <b>Q4</b>                                      | IAL Unit 3 January 2020 | 1                 | <b>94</b>  |
| 34. <b>Q1</b>                                      | IAL Unit 3 October 2021 | 1                 | <b>95</b>  |
| 35. <b>Q2</b>                                      | IAL Unit 3 June 2023    | 1                 | <b>96</b>  |
| 36. <b>Q1</b>                                      | IAL Unit 3 June 2024    | 1                 | <b>97</b>  |
| 37. <b>Q1</b>                                      | IAL Unit 3 June 2025    | 1                 | <b>98</b>  |
| 38. <b>Q7(c)</b>                                   | IAL Unit 3 October 2022 | 4                 | <b>99</b>  |
| 39. <b>Q7(c)</b>                                   | IAL Unit 3 October 2024 | 6                 | <b>103</b> |
| 40. <b>Q7(e)</b>                                   | IAL Unit 3 January 2021 | 14                | <b>108</b> |
| 41. <b>Q10</b>                                     | IAL Unit 3 October 2023 | 20                | <b>114</b> |
| <b>3.3.2.4 PROFITS AND LOSSES</b>                  |                         | 19 Qs · 148 marks | <b>115</b> |
| 42. <b>Q2</b>                                      | IAL Unit 3 October 2020 | 1                 | <b>116</b> |
| 43. <b>Q1</b>                                      | IAL Unit 3 January 2022 | 1                 | <b>117</b> |
| 44. <b>Q5</b>                                      | IAL Unit 3 October 2022 | 1                 | <b>118</b> |
| 45. <b>Q4</b>                                      | IAL Unit 3 January 2023 | 1                 | <b>119</b> |
| 46. <b>Q4</b>                                      | IAL Unit 3 October 2023 | 1                 | <b>120</b> |
| 47. <b>Q4</b>                                      | IAL Unit 3 January 2025 | 1                 | <b>121</b> |
| 48. <b>Q7(b)</b>                                   | IAL Unit 3 October 2021 | 4                 | <b>122</b> |
| 49. <b>Q7(d)</b>                                   | IAL Unit 3 June 2021    | 8                 | <b>126</b> |
| 50. <b>Q7(d)</b>                                   | IAL Unit 3 January 2022 | 8                 | <b>131</b> |
| 51. <b>Q7(d)</b>                                   | IAL Unit 3 June 2022    | 8                 | <b>136</b> |
| 52. <b>Q7(d)</b>                                   | IAL Unit 3 June 2023    | 8                 | <b>141</b> |
| 53. <b>Q7(d)</b>                                   | IAL Unit 3 June 2024    | 8                 | <b>146</b> |
| 54. <b>Q7(d)</b>                                   | IAL Unit 3 October 2024 | 8                 | <b>151</b> |
| 55. <b>Q7(d)</b>                                   | IAL Unit 3 June 2025    | 8                 | <b>156</b> |
| 56. <b>Q7(e)</b>                                   | IAL Unit 3 October 2021 | 14                | <b>161</b> |
| 57. <b>Q7(e)</b>                                   | IAL Unit 3 June 2022    | 14                | <b>167</b> |
| 58. <b>Q7(e)</b>                                   | IAL Unit 3 June 2025    | 14                | <b>173</b> |
| 59. <b>Q9</b>                                      | IAL Unit 3 January 2021 | 20                | <b>179</b> |
| 60. <b>Q8</b>                                      | IAL Unit 3 January 2024 | 20                | <b>180</b> |



# QUESTIONS

---

60 questions · 285 marks · 4 sub-topics

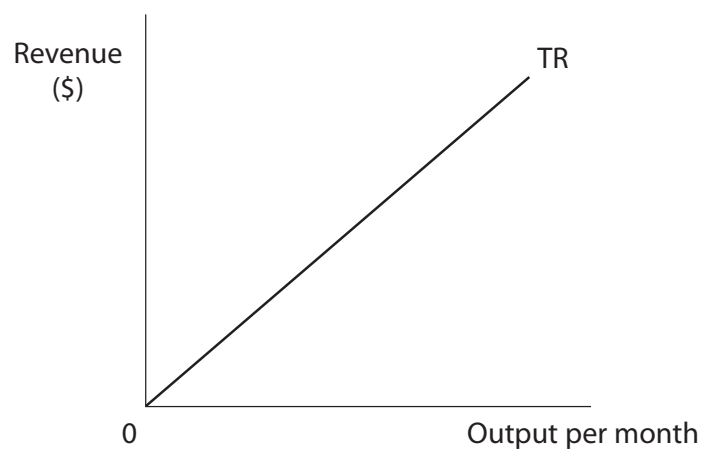
SUB-TOPIC 3.3.2.1

## REVENUE

Sub-topic 3.3.2.1 · 12 questions · 22 marks · lowest tariff first



6 The diagram shows a firm's total revenue as output increases.



Which **one** of the following best characterises such a firm?

**A****Marginal Revenue**

Rising

**B**

Constant

**C**

Negative

**D**

Falling

(Total for Question 6 = 1 mark)

**TOTAL FOR SECTION A = 6 MARKS**



- 3 The table shows the number of international subscribers for Netflix and its total revenue for Q4 in the years 2017 to 2020.

|         | International subscribers<br>(millions) | Total revenue<br>(\$ million) |
|---------|-----------------------------------------|-------------------------------|
| Q4 2017 | 110.64                                  | 3 286                         |
| Q4 2018 | 139.26                                  | 4 187                         |
| Q4 2019 | 167.09                                  | 5 467                         |
| Q4 2020 | 203.66                                  | 6 644                         |

Which **one** of the following can be deduced from the table?

- ☐ A Average revenue was \$32.62 in Q4 2017
- ☐ B Average revenue was \$29.70 in Q4 2018
- ☐ C Average revenue was \$32.72 in Q4 2019
- ☐ D Average revenue was \$30.07 in Q4 2020

(Total for Question 3 = 1 mark)

- 4 Total revenue for American Airlines fell from \$45.77 billion in 2019 to \$17.34 billion in 2020. In response, American Airlines made 31 000 staff redundant.

Which **one** of the following was the most likely reason for these staff redundancies?

- ☐ A The number of airline passengers rose
- ☐ B The derived demand for labour fell
- ☐ C Government employment subsidies to airlines increased
- ☐ D Taxation on airline employees decreased

(Total for Question 4 = 1 mark)



- 2 The table shows the quantity of shirts that would be sold at different selling prices by a textile manufacturer based in Botswana.

| Selling price (\$) | Quantity of shirts demanded |  |
|--------------------|-----------------------------|--|
| 18                 | 4 000                       |  |
| 16                 | 5 000                       |  |
| 14                 | 6 000                       |  |
| 12                 | 7 000                       |  |

Which **one** of the following would be the textile manufacturer's marginal revenue if the price was reduced from \$16 to \$14?

You may want to use the final column for your workings.

- ☐ A \$0
- ☐ B \$4
- ☐ C \$12
- ☐ D \$14

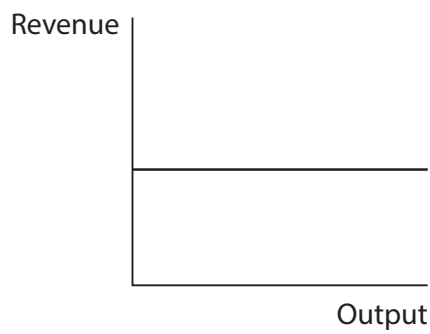
(Total for Question 2 = 1 mark)



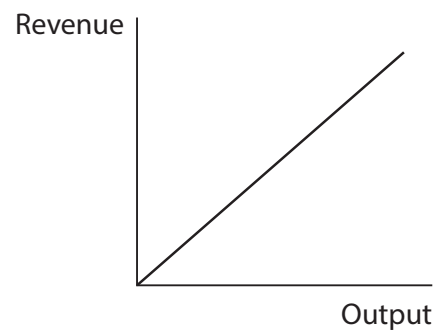
- 6 In October 2023 Apple's market share of the smartphone market in the USA was 56.41%. It faces a downward sloping demand curve.

Which **one** of the following diagrams would illustrate Apple's total revenue curve?

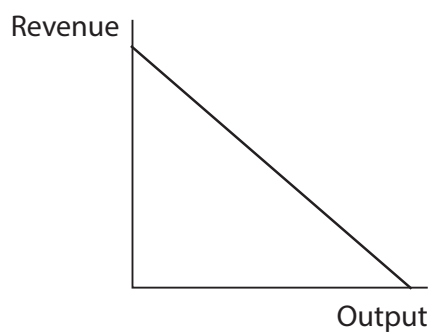
☐ A



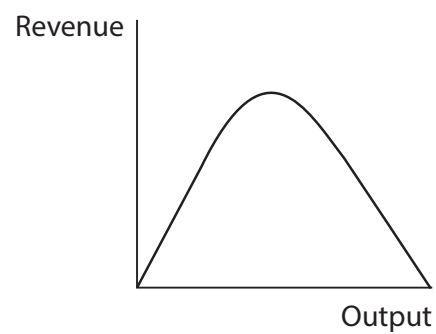
☐ B



☐ C



☐ D

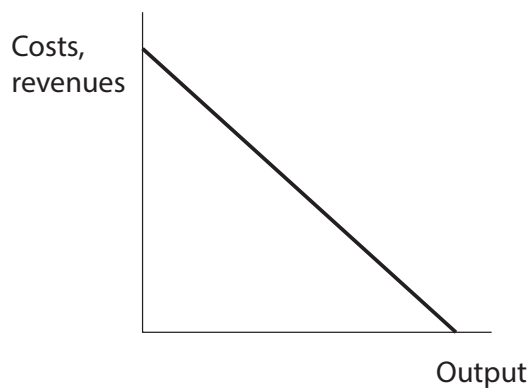
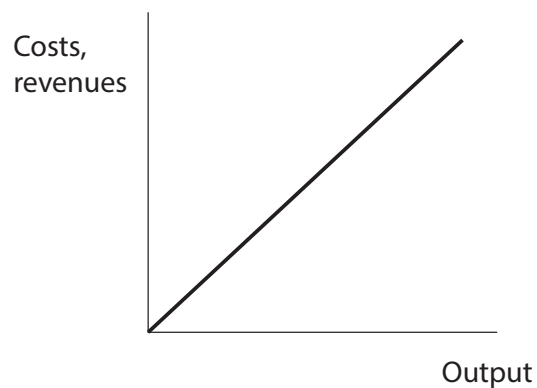
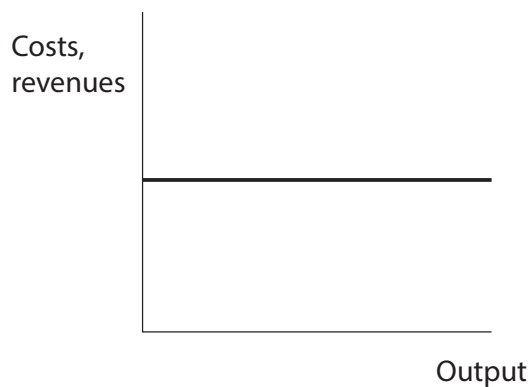
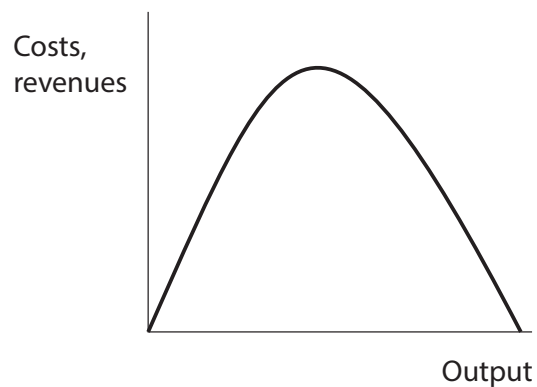


(Total for Question 6 = 1 mark)

**TOTAL FOR SECTION A = 6 MARKS**



6 Which **one** of the following diagrams illustrates the total revenue curve for a profit-maximising firm operating in a perfectly competitive market?

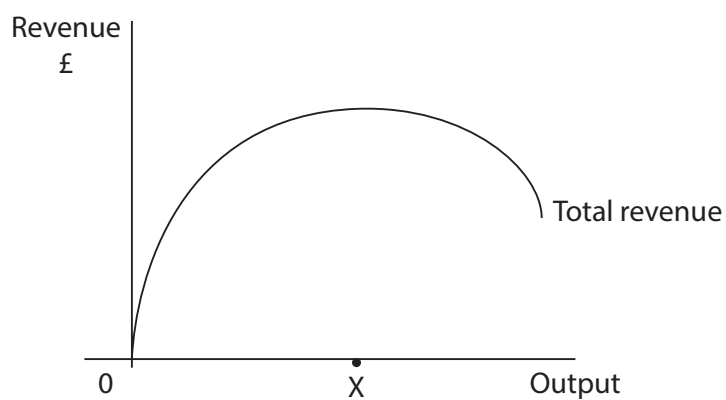
**A****B****C****D**☐ **A**☐ **B**☐ **C**☐ **D**

(Total for Question 6 = 1 mark)

**TOTAL FOR SECTION A = 6 MARKS**



- 6 The following diagram shows the total revenue curve for an imperfectly competitive business in Nepal selling mobile phones.



Which **one** of the following can be deduced from the diagram at an output of  $0X$ ?

- ☐ A Marginal revenue is zero
- ☐ B Marginal revenue is negative
- ☐ C Marginal revenue is equal to one
- ☐ D Marginal revenue is maximised

(Total for Question 6 = 1 mark)

**TOTAL FOR SECTION A = 6 MARKS**

**SECTION B**

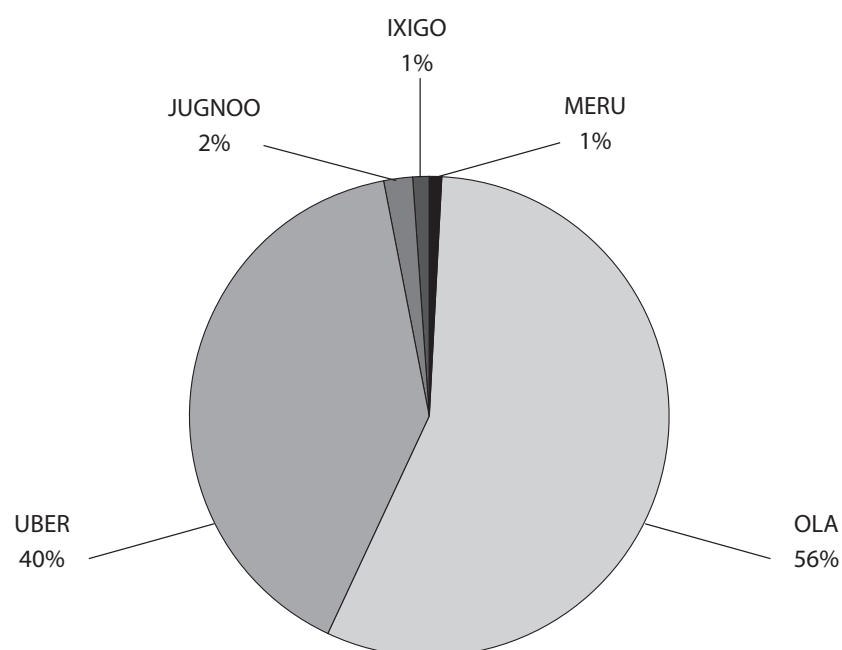
**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Uber India's revenue from 2016 to 2018. You are advised to show your working. (2)
- (b) With reference to Extract B, explain what is meant by 'privatisation'. (4)
- (c) With reference to Extract B, examine **two** likely effects of deregulation and privatisation. (8)
- (d) With reference to Figure 2 and Extract A, analyse the likely effect of predatory pricing on the profits of a ride-hailing taxi firm. (6)
- (e) With reference to Extract C and your own knowledge, discuss the likely effects on consumers of the price discrimination strategy. (14)
- Illustrate your answer with an appropriate diagram(s).



**Sources for use with Section B.****The business behaviour of large firms****Figure 1 Uber India's revenue for year ending in March in rupees billion (Rs)**

|      |     |
|------|-----|
| 2016 | 3.7 |
| 2017 | 4.1 |
| 2018 | 5.3 |

**Figure 2 Market share of ride-hailing taxi firms in India, December 2017**

**Extract A Predatory pricing in India?**

The Chief Executive of Ola, India's biggest ride-hailing taxi firm, has heavily criticised the pricing policies of Uber. He claims that Uber has been adopting a predatory pricing strategy. A spokesperson for Uber denied this, stating that her company competes fairly to attract customers.

5

The two major ride-hailing taxi firms have been engaged in continuous price competition since Uber entered the Indian market in 2013. Since then both firms have repeatedly cut fares in big cities to levels either equal to or below the cost of each ride. For example, in March 2016 Ola offered rides in small cars for just Rs6 (\$0.09) per kilometre, in addition to a flat rate charge. This price cut was made as a response to a price reduction by Uber.

10

**Extract B End of state-owned coal monopoly in India**

In 2017 the Indian Government announced its decision to deregulate and privatise parts of India's coal mining industry. This would end the long-standing monopoly of state-owned Coal India Ltd. Certain mines will be auctioned and contracts then awarded to private sector mining firms. As well as enabling domestic firms to enter the industry, the decision could also lead to global mining companies such as Rio Tinto, BHP Billiton and Vale entering the industry.

5

It is claimed these changes will lead to increased investment and create more direct and indirect employment in coal mining areas. However, representatives of mining trade unions fear that it may lead to job losses.

10

**Extract C Price discrimination in Zambia**

Zambia Sugar is responsible for over 90% of total sugar production in Zambia. In 2017 the Government's Competition and Consumer Protection Commission (CCPC) found that Zambia Sugar had engaged in price discrimination against several household sugar and industrial sugar\* customers. The firm was charging Zambian consumers of household sugar 40% more than the export price for the same product. This price difference was not linked to any changes in Zambia's exchange rate.

5

In addition, some manufacturers were charged lower prices for the same industrial sugar compared to others. These price differences could not be explained by differences in the quantities of sugar purchased.

10

The CCPC fined the firm 76 million Zambian Kwacha (ZK) for unfair pricing. Zambia Sugar was told that it should end its price discrimination strategies and set fair prices for both household sugar and industrial sugar in future.

\* where sugar is an ingredient in further production



**7** (a) With reference to Figure 1, calculate the percentage change in Uber India's revenue from 2016 to 2018. You are advised to show your working.

(2)

(b) With reference to Extract B, explain what is meant by 'privatisation'.

(4)

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Amazon's revenue between 2010 and 2020. (2)
- (b) With reference to Figure 2, explain the market structure of cloud infrastructure providers. (4)
- (c) With reference to Extract A, analyse the likely impact on consumers of **two** methods by which Amazon competes with other retailers. (6)
- (d) With reference to Extract A, examine **two** likely effects of the global health crisis on Amazon's profits. (8)
- (e) With reference to Extract B and your own knowledge, discuss reasons why many SMEs in South Africa shut down in 2020. (14)
- Illustrate your answer with an appropriate diagram.

## Sources for use with Section B

## The impact of the global health crisis

Figure 1 Amazon's annual revenue, 2010–2020 (billion US dollars)

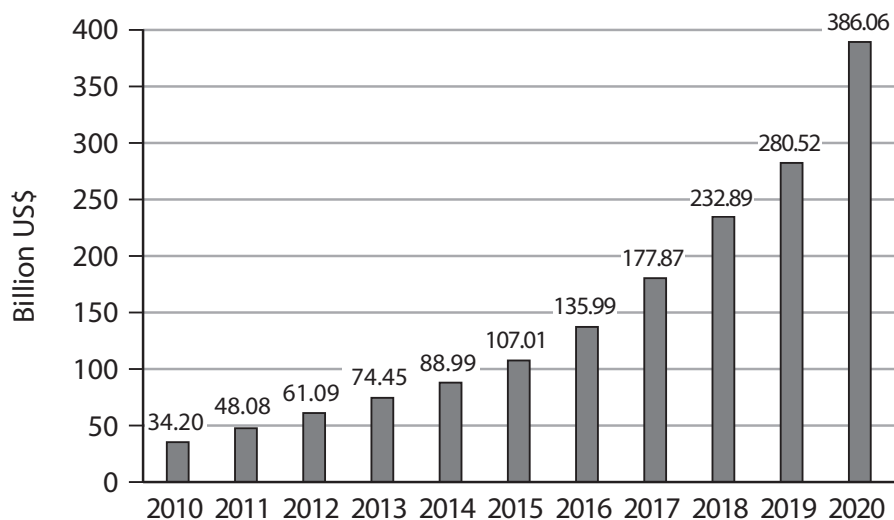
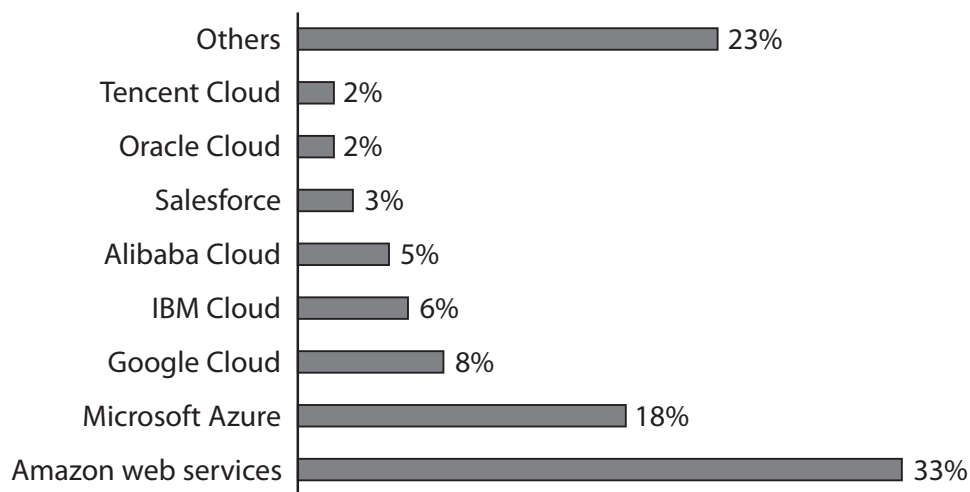


Figure 2 Worldwide market share of cloud infrastructure providers by revenue, Q4 2019



**Extract A Amazon**

Amazon, the American global distribution business, increased its revenue from \$280.5 billion in 2019 to \$386.1 billion in 2020. For the year ending 31 March 2021 its profit was \$167.6 billion. The business operates mainly online but it also has several physical stores. Amazon's success has been driven by its methods of competition including its focus on convenience, fast delivery, low prices and choice for its consumers. Over 28% of consumers complete an Amazon order in three minutes or less and 50% of consumers in under 15 minutes. Amazon produces its own products such as Amazon Prime, Alexa, Kindle, Fire and Echo, as well as selling millions of additional products. Amazon also offers the opportunity for third party suppliers to sell on its website.

5

10

During 2020, the global health crisis prevented consumers from visiting physical stores. As a result many people used Amazon to purchase products online. This led to an increase in the demand for goods supplied by Amazon. Its costs of production increased by \$4 billion, mainly as a result of employing an additional 400 000 workers in 2020. By the end of the year, it employed 1.3 million full-time and part-time workers globally. A fall in labour productivity also caused an increase in costs.

15

**Extract B Small and medium-size enterprises (SMEs) in South Africa**

As a result of the global health crisis the revenues of many South African enterprises fell significantly. In July 2020 a management consultancy company conducted a survey of 4 500 businesses in South Africa to examine the impact of the global health crisis. It reported that 21% of enterprises were closed but, of these, 64% indicated that they expected to reopen.

5

The survey also established that SMEs were 26 times more likely to close than much larger enterprises. In addition, SMEs would require R1.1 trillion of government financial support in order to remain open in 2021. In South Africa SMEs make up 98.5% of the total number of enterprises and contribute 39% to the country's GDP.

10

In the survey 70% of SMEs reported that they cut back on spending to survive. Over half of medium-sized enterprises were only able to survive by closing parts of their business or reducing capacity until the economic situation improved. However, the revenue of many SMEs did not cover their variable costs and they were forced to shut down.

The survey findings were not all negative. Those SMEs offering essential services, such as food, reported an increase in revenues. Although costs had also risen, profits had either remained constant or had increased.

15



- 7 (a) With reference to Figure 1, calculate the percentage change in Amazon's revenue between 2010 and 2020.

(2)

.....

.....

.....

.....

.....

.....



**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Deliveroo's total revenue between 2017 and 2021. You are advised to show your working. (2)
- (b) With reference to Figure 2, explain the market structure of the UK food delivery market in 2021. (4)
- (c) With reference to Extract B, analyse **two** factors that influence the demand for online food delivery. (6)
- (d) With reference to Figure 1 and the first paragraph of Extract B, examine **two** reasons why Deliveroo is making a loss. (8)
- Illustrate your answer with an appropriate diagram(s).
- (e) With reference to the information provided, discuss the strategies used by food delivery businesses to increase their market shares. (14)
- Refer to game theory analysis in your answer.

## Sources for use with Section B

## The food delivery market

Figure 1 Deliveroo's annual total revenue and loss, £ million, 2017–2021

| Year | Total revenue | Loss |
|------|---------------|------|
| 2017 | 277           | 199  |
| 2018 | 476           | 232  |
| 2019 | 771           | 317  |
| 2020 | 1 163         | 223  |
| 2021 | 1 824         | 298  |

Figure 2 Market share (%) of food delivery businesses in the UK, 2017–2021, (percentage share based on revenue)

|           | 2017 | 2021 |
|-----------|------|------|
| Just Eat  | 68   | 40   |
| Deliveroo | 12   | 27   |
| Uber Eats | 6    | 27   |
| Dominos   | 5    | 3    |
| Others    | 9    | 3    |



**Extract A Deliveroo's market share in the UK**

Deliveroo is a food delivery business operating mainly in western Europe. Consumers use an app to order food from a restaurant. Once the food has been prepared, a Deliveroo courier collects the food and delivers it to the consumer.

Deliveroo has three main competitors in the UK's food delivery market: Just Eat, Uber Eats and Dominos. All businesses provide consumers with an app to access their services. 5

During the global health crisis, Deliveroo experienced significant growth in its market share. This was because it differentiated itself by introducing home deliveries of groceries together with orders for takeaway meals. By the end of the crisis, Uber Eats and Just Eat had also introduced grocery deliveries to households. 10

Furthermore, the three largest businesses in the UK have been engaged in a price war and expensive advertising campaigns. The aim of these strategies was to increase market share and to force other competitors to leave the market.

**Extract B Costs and revenues**

In 2021 Deliveroo made a loss of £298 million. Marketing costs and fixed costs increased from £358.5 million in 2020 to £628.7 million in 2021. Costs are expected to continue to rise in the short-run because of the increase in the price of fuel and high rates of inflation across Europe. In the first six months of 2022, although Deliveroo's revenue was increasing, this was at a slower rate than the increase in its costs of production. 5

The average value of an order for a takeaway meal fell in many countries because consumers reduced the number of luxury items they purchased. In the European Union in June 2022 the annual growth in wages was 4.5% but the annual inflation rate was 9.6%. 10

However, demand for online food delivery and takeaway meals is expected to increase rapidly between 2023 and 2030. There are several reasons for this expected increase in demand including:

- An increase in the number of people living in cities. For example, from 2015 to 2025, there is expected to be a 7.6% increase in the population living in cities in the UK 15
- Greater consumer preference for online ordering associated with an increase in internet connectivity and smartphone usage. For example, online ordering and food delivery is growing at an annual rate of between 15% and 20% in the UK
- Increased advertising by food delivery businesses. For example, Just Eat's marketing expenditure in the first half of 2021 totalled £252 million compared with £83 million in the first half of 2020. 20

(2)

(4)

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 2, calculate the percentage change in the price of the Model 3 Rear Wheel Drive vehicle between January and October 2022. (2)
- (b) With reference to Extract A, analyse **two** reasons why sales of electric vehicles in China increased.  
Illustrate your answer with a supply and demand diagram. (6)
- (c) With reference to Figure 1 and Extract B, explain the market structure that best describes the electric vehicle market in China. (4)
- (d) With reference to the first two paragraphs of Extract B, examine the impact of Tesla producing its electric vehicles in China on its costs and profits.  
Illustrate your answer with a costs and revenues diagram. (8)
- (e) With reference to the information provided and your own knowledge, discuss the impact of Tesla reducing its prices on the behaviour of other electric vehicle manufacturers. (14)

## Sources for use with Section B

## The electric vehicle market in China

Figure 1 Market share for electric vehicle passenger sales, based on sales revenue, 2021

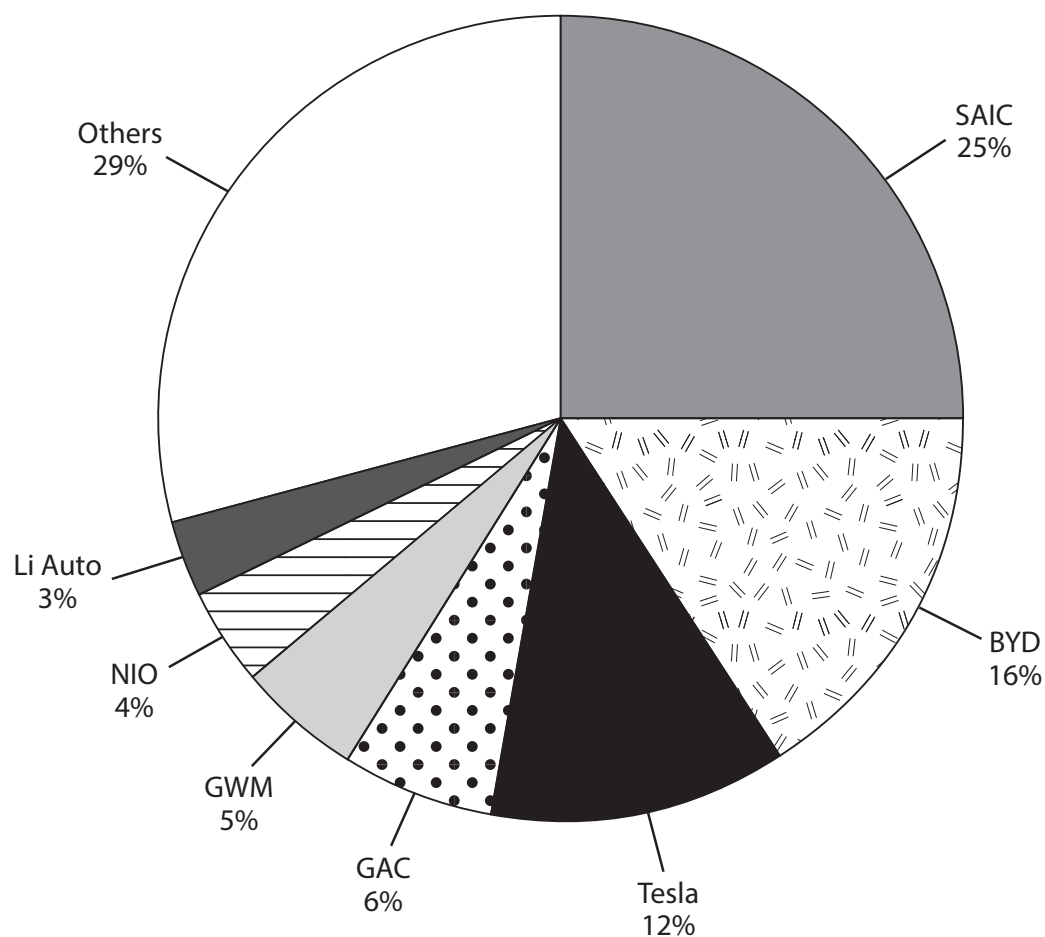


Figure 2 Tesla electric vehicle prices, 2022 (Yuan, 000s)

| Model of vehicle         | January 2022 | October 2022 |
|--------------------------|--------------|--------------|
| Model 3 Rear Wheel Drive | 280          | 266          |
| Model 3 Performance      | 368          | 350          |
| Model Y Rear Wheel Drive | 317          | 289          |
| Model Y Performance      | 418          | 398          |

**Extract A Changes in the Chinese electric vehicle market**

In 2020 the Chinese Government adopted many new measures to reduce CO<sub>2</sub> emissions, in order to meet its climate change goals by 2030. For example, the Government has increased the number of charging points and raised the tax on non-electric vehicles. The global increase in the price of fuel has also led to an increase in demand for electric vehicles. Between 2021 and 2022 the sales of electric vehicles in China increased by 83% to 5.92 million.

5

**Extract B Tesla in China**

Tesla, a US-owned vehicle company, has attempted to increase its sales in China to take advantage of the increasing demand for electric vehicles. In 2019 the company opened a factory in Shanghai. It became the first fully foreign-owned vehicle manufacturer in the country. By producing vehicles in China, Tesla was able to take advantage of government incentives, such as subsidies, aimed at promoting the domestic electric vehicle industry, as well as benefiting from low-cost labour. This new factory was expected to increase Tesla's competitiveness in the Chinese market by making its vehicles more affordable for consumers. China has become a key manufacturing centre for Tesla. Its factory in Shanghai produced over 710 000 vehicles in 2022. This represented 52% of the company's worldwide output.

5

10

However, production has been difficult in China. Tesla faced supply chain disruptions as a result of the global health crisis of 2020 to 2022. This resulted in a reduction in output and an increase in its costs of production. Tesla also had to pay taxes on imported components and finished vehicles.

15

In October 2022 Tesla reduced the price of several of its electric vehicles. The two main reasons for these price reductions were:

- a fall in its production costs arising from government subsidies to electric car manufacturers
- improved efficiency from manufacturing in Shanghai.

20

The lower prices of Tesla's electric vehicles had a significant impact on its competitors. Domestic and other international manufacturers responded by reducing their prices for electric vehicles as they competed for market share.

- 7 (a) With reference to Figure 2, calculate the percentage change in the price of the Model 3 Rear Wheel Drive vehicle between January and October 2022.

(2)

- (b) With reference to Extract A, analyse **two** reasons why sales of electric vehicles in China increased.

Illustrate your answer with a supply and demand diagram.

(6)



**SECTION B**

**Study Figure 1 and Extracts A, B and C in the Source Booklet before answering Question 7.**

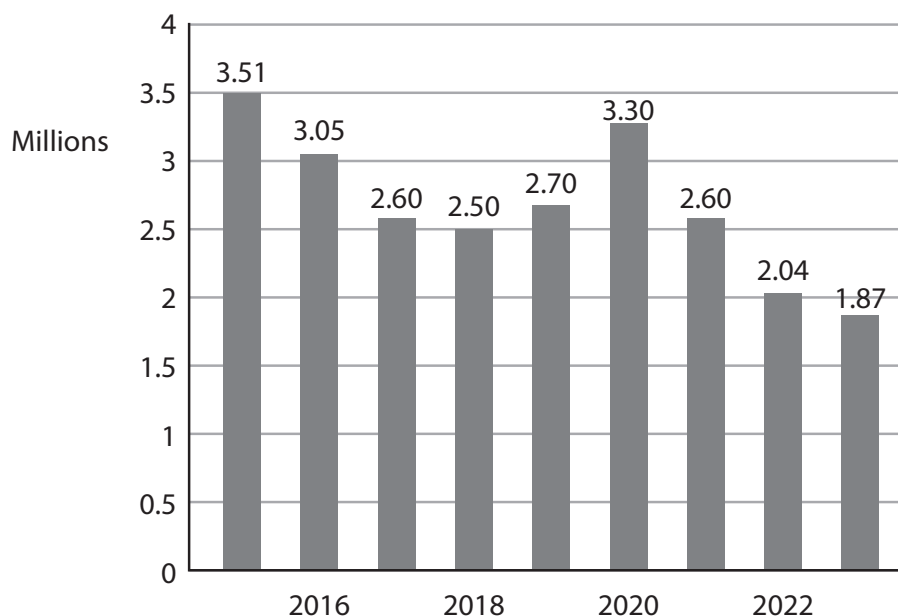
**Write your answers in the spaces provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in bicycle sales between 2022 and 2023.
- You are advised to show your workings. (2)
- (b) With reference to the first two paragraphs of Extract B, explain what is meant by 'a reduction in contestability'. (4)
- (c) With reference to Extract B and your own knowledge, analyse **two** reasons why some bicycle retailers remain small. (6)
- (d) With reference to Figure 1, Extract A and Extract B, examine **two** reasons why some bicycle retailers were forced to close. (8)
- (e) With reference to Extract C, discuss methods that Halfords could use to increase its profitability.
- Illustrate your answer with a costs and revenues diagram. (14)

## Sources for use with Section B

## The UK bicycle industry

Figure 1 Number of bicycles sold in the UK, millions, 2015–2023



## Extract A The UK bicycle market

The UK bicycle market is facing a challenging period with declining sales. In 2023, sales were at their lowest in over 10 years. Since 2020, this decline was mainly caused by:

- a decrease in consumer demand after the boom in bicycle sales during the global health crisis
- high inflation rates.

5

However, in 2023, sales of some types of bicycles increased. For example, electric bikes (e-bikes) are becoming a more popular choice. Mintel, a market research business, forecast a 12% increase in bicycle sales in 2024. This increase in demand is expected to be caused by a combination of factors, including a recovery in consumer spending and significant price reductions by retailers.

10

**Extract B Competition in the UK bicycle market**

There were 2 234 bicycle retailers in the UK in 2023. This was a decrease of 2.1% compared with 2022. The majority of these retailers are independently owned. However, a few large businesses dominate the market, including Evans Cycles, Chain Reaction Cycles, Wiggle and Halfords.

5

A rise in online shopping has been a challenge for many small-scale bicycle retailers. Online sales initially provided an opportunity for small-scale businesses to increase their market shares. However, the larger businesses quickly dominated the online market by investing heavily in advertising and branding, and by offering online discounts. These strategies have resulted in a reduction in contestability.

10

In 2023, an increasing number of bicycle retailers shut down. As the global health crisis eased, people started returning to their old routines and the demand for bicycles decreased. This left retailers with many unsold bicycles. To sell the excess supply, the large businesses reduced their prices. As a result, many small-scale retailers could not compete with these lower prices.

15

However, there are still opportunities for small-scale bicycle retailers to succeed. These businesses offer unique expertise and specialist services such as bike fitting and selling a niche range of bicycles. Some of these businesses have also been successful in adapting quickly to the growing demand for e-bikes.

**Extract C Halfords**

Halfords is the largest bicycle retailer in the UK, with a market share of approximately 20%. It has been successfully selling new and innovative products, such as electric scooters (e-scooters). Halfords is also a market leader for e-bikes.

In the first quarter of 2024, Halfords' profit before tax fell by 18% compared with the previous year. Revenue fell because poor weather caused a decrease in sales of bicycle products. Total costs had also increased by 12.7%. This was mainly caused by:

5

- a 10% increase in the national minimum wage
- significant increases in transport costs.

Halfords aims to overcome these challenges and continue to grow its business by:

10

- focusing on its services business e.g. bike servicing, which is less affected by economic downturns
- investing in its online presence to reach more consumers
- increasing its price competitiveness
- expanding its sales of e-bikes and e-scooters.

15



**SECTION B**

**Study Figure 1 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

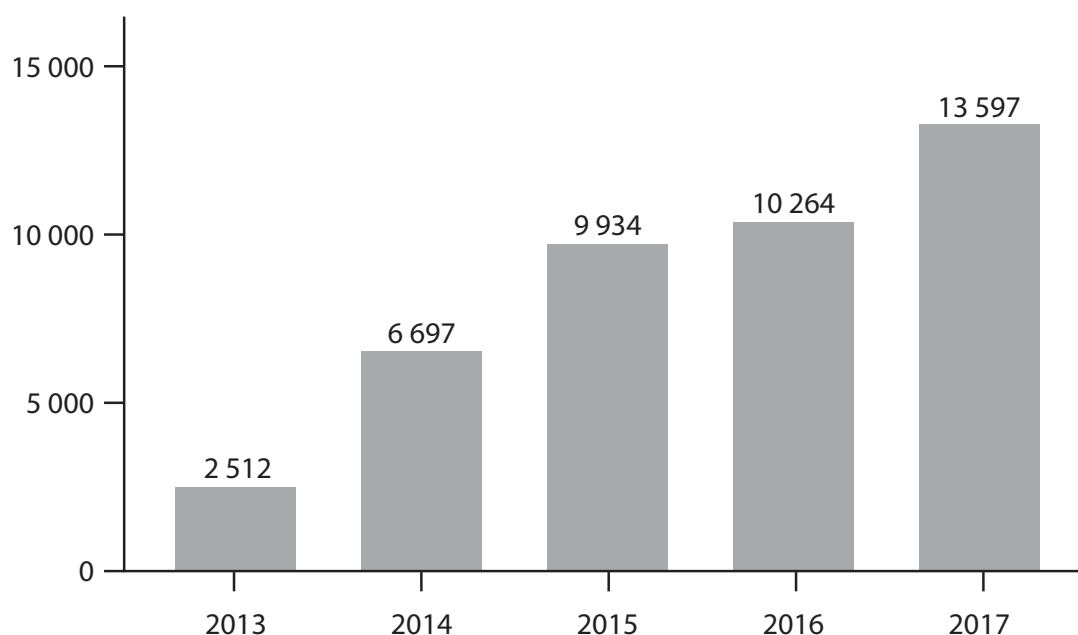
- 7** (a) With reference to Figure 1, calculate the percentage change in electric car sales from 2013 to 2017. You are advised to show your working. (2)
- (b) With reference to Extract A and Extract B, explain what is meant by *specialisation*. (4)
- (c) With reference to Extract A, examine the likely effect of a decrease in variable costs on Tesla's profits.  
Illustrate your answer with an appropriate diagram(s). (8)
- (d) With reference to Extract B, analyse the relationship between price elasticity of demand and total revenue.  
Illustrate your answer with an appropriate diagram(s). (6)
- (e) With reference to the information provided, discuss the significance of barriers to entry and exit in the electric car market for new entrants, such as Dyson. (14)



## Sources for use with Section B.

## The electric car market

Figure 1 UK electric car registrations, 2013 – 2017



## Extract A Financial performance of Tesla

Tesla is a large American corporation that specialises in the production of electric cars. In January 2017 the company had a 30% market share for electric cars in the USA.

Between 2010 and March 2018, Tesla recorded only two profitable quarters. The company made its biggest quarterly loss of \$709.6 million in quarter one of 2018. It was failing to produce enough of its 'Model 3' mass market electric car. For example, 20 000 'Model 3' cars should have been produced in December 2017. However, during the whole of quarter four of 2017, Tesla manufactured only 2 425 cars.

5

The 'Model 3' is the most important part of Tesla's plan to become a mass market car manufacturer. At one stage, it had more than 500 000 potential consumers on its waiting list. However, in April 2018 the company admitted that some buyers had cancelled their orders for Tesla cars.

10

Senior managers have been looking for ways of decreasing the company's variable costs. This may require the sourcing of cheaper car parts and reducing the number of workers on production lines.

15

**Extract B New entrants in the luxury electric car market**

Dyson was established in 1991. It has become a very successful technology company with its headquarters in the UK. It specialises in the design and manufacture of domestic appliances such as vacuum cleaners, hand dryers and hair dryers. In 2018 Dyson employed 12 000 workers worldwide. The company has built a reputation for creating and producing a range of high quality and innovative products. 5

Its latest project is to design and produce an electric vehicle. Dyson plans to invest \$2.7 billion, split evenly between battery technology and vehicle development. Initially, the company will be targeting the luxury segment of the electric car market. This is a niche that Tesla almost exclusively occupies. Demand is significantly more price inelastic in this part of the market. 10

However, it is possible that barriers to entry and exit could create problems for Dyson. The experience of Apple may prove to be relevant. Apple abandoned its plans to manufacture electric cars when both the high initial capital costs and the complexities of the production process became apparent. 15

The badge on the front of a luxury car is all-important. Possibly a Dyson brand associated with domestic appliances might lack sufficient appeal for potential consumers. However, Dyson's previous success when marketing new products may be repeated in the electric car market.

There is also likely to be significant competition in the luxury electric car market. For example, Jaguar is about to launch the iPace, a competitor to Tesla's Model S. Porsche, Audi and BMW all have new luxury electric car models due to be on sale by late 2020. Several other companies are set to enter the market for luxury electric cars. 20

Finding buyers is another challenge. For example, Tesla had to spend heavily on setting up its own retail network to compete with the established distribution channels of the large car manufacturers. 25

(6)





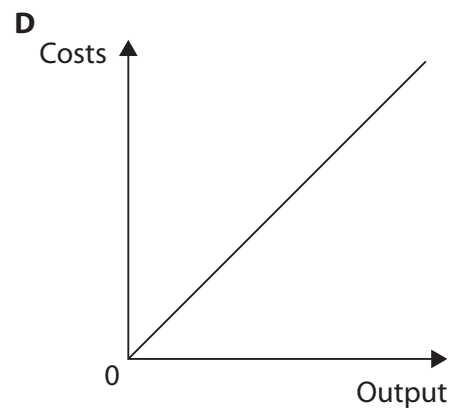
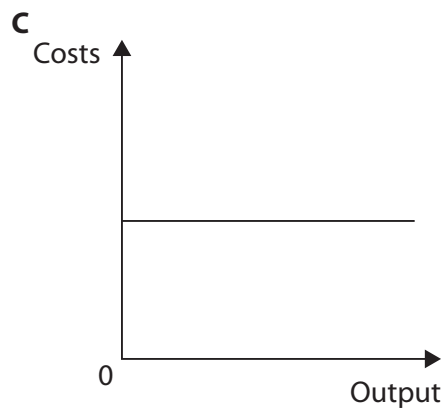
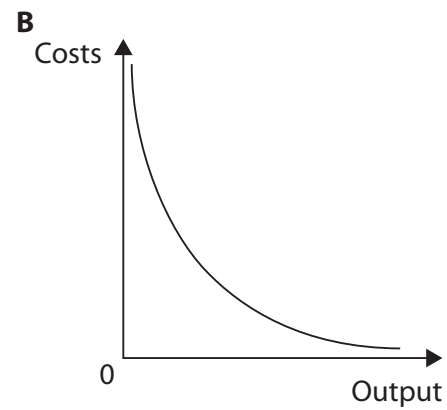
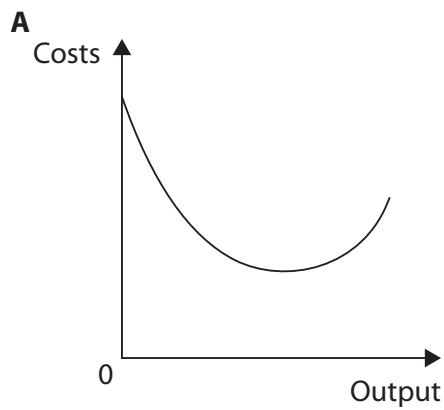
SUB-TOPIC 3.3.2.2

# COSTS

Sub-topic 3.3.2.2 · 20 questions · 66 marks · lowest tariff first



3 Which **one** of the following diagrams illustrates a firm's average fixed cost curve?



- ☐ A
- ☐ B
- ☐ C
- ☐ D

(Total for Question 3 = 1 mark)

4 Which **one** of the following will influence the elasticity of demand for labour?

- ☐ A The size of the population
- ☐ B The level of welfare benefits
- ☐ C Labour costs as a percentage of total costs
- ☐ D The rules determining the number of immigrants

(Total for Question 4 = 1 mark)

5 The table shows a firm's total costs of producing textbooks.

| Output | Total costs (\$) |
|--------|------------------|
| 0      | 14 000           |
| 1 000  | 15 000           |
| 2 000  | 16 000           |
| 3 000  | 17 000           |
| 4 000  | 18 000           |
| 5 000  | 19 000           |

What would be the average variable cost at an output of 4 000 textbooks?

- ☐ A \$0.75
- ☐ B \$1.00
- ☐ C \$3.25
- ☐ D \$4.50

(Total for Question 5 = 1 mark)



4 The table shows the total costs of producing sports footwear by a firm in the USA.

| Units of output | Total Cost (\$) |
|-----------------|-----------------|
| 0               | 12              |
| 1               | 16              |
| 2               | 19              |
| 3               | 22              |
| 4               | 27              |
| 5               | 33              |
| 6               | 40              |
| 7               | 48              |

Between which of the following outputs do diminishing returns start to set in?

- ☐ A 1–2 units
- ☐ B 3–4 units
- ☐ C 5–6 units
- ☐ D 6–7 units

(Total for Question 4 = 1 mark)

5 India's net migration was –2.7 million in 2017. This caused a decrease in the supply of labour.

Which other factor would also cause a decrease in India's supply of labour?

- ☐ A An increase in the level of welfare benefits
- ☐ B A decrease in the productivity of labour
- ☐ C An increase in the size of the population
- ☐ D A decrease in the price of capital

(Total for Question 5 = 1 mark)



3 The table shows the total costs of a battery manufacturer at different levels of output.

| Output | Total costs (£) |
|--------|-----------------|
| 0      | £4 500          |
| 100    | £8 000          |
| 200    | £10 700         |
| 300    | £13 200         |
| 400    | £15 300         |

Which **one** of the following is the average variable cost at 300 units?

- ☐ A £15
- ☐ B £27
- ☐ C £29
- ☐ D £44

(Total for Question 3 = 1 mark)

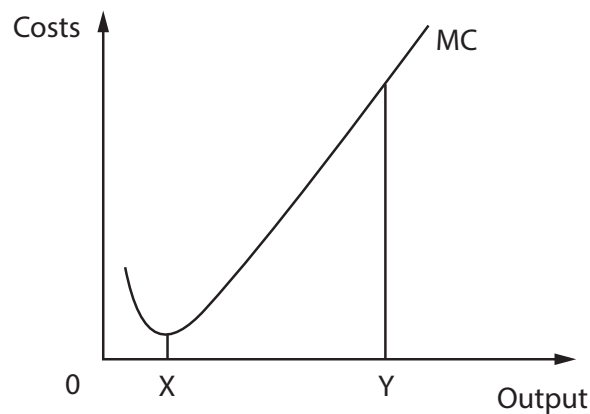


## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☐. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☐.

- 1 The diagram shows a short-run marginal cost curve for a small café in Thailand.



Which **one** of the following is the reason why the MC curve slopes upwards from point X to point Y?

- ☐ A Decreasing returns to scale
- ☐ B Increasing fixed costs
- ☐ C Diminishing returns
- ☐ D Diseconomies of scale

(Total for Question 1 = 1 mark)

- 2 The output of a textile manufacturer based in Botswana is 30 000 units of clothing per month. The firm's total revenue is \$78 000, its total costs are \$57 800 and its total fixed costs are \$30 800 per month.

Which **one** of the following is the firm's average variable cost at this level of output?

- ☐ A \$0.90
- ☐ B \$1.03
- ☐ C \$1.93
- ☐ D \$2.60

(Total for Question 2 = 1 mark)

- 3 A survey conducted in 2021 found that 76% of US companies with factories in China were in the process of moving operations to other countries in southeast Asia. This would cause thousands of manufacturing workers in China to lose their jobs.

Which **one** of the following government measures is most likely to increase the occupational mobility of labour?

- ☐ A An increase in unemployment benefits
- ☐ B An increase in relocation grants for businesses
- ☐ C An increase in training schemes
- ☐ D An increase in the national minimum wage

(Total for Question 3 = 1 mark)

- 4 Big Bazaar is a large grocery retailer in India. It faces a downward-sloping average revenue curve and is making supernormal profits. In 2022 rental costs increased by an average of 6.5%.

*Ceteris paribus*, which **one** of the following combinations indicates the impact of this increase in rental costs on Big Bazaar?

|                            | Profit    | Price     |
|----------------------------|-----------|-----------|
| <input type="checkbox"/> A | No change | No change |
| <input type="checkbox"/> B | Rise      | Decrease  |
| <input type="checkbox"/> C | Fall      | No change |
| <input type="checkbox"/> D | No change | Decrease  |

(Total for Question 4 = 1 mark)

- 5 The table shows the total costs of a shirt manufacturer at different levels of output.

| Output | Total costs \$ |
|--------|----------------|
| 0      | 100 000        |
| 5 000  | 120 000        |
| 10 000 | 150 000        |
| 15 000 | 170 000        |
| 20 000 | 180 000        |

Which **one** of the following is the average fixed cost if the shirt manufacturer is producing 10 000 shirts?

- ☐ A \$5
- ☐ B \$6.67
- ☐ C \$10
- ☐ D \$20

(Total for Question 5 = 1 mark)



## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

- 1 In 2021, Koji Sato, the CEO of Toyota, stated that technical economies of scale were one of the main reasons for the company's success.

Which **one** of the following results from technical economies of scale?

- ☐ A An increase in purchasing economies
- ☐ B A decrease in advertising costs
- ☐ C An increase in short-run average costs
- ☐ D A decrease in long-run average costs

(Total for Question 1 = 1 mark)

- 2 The table shows the costs for a small hairdressing business as it increases the number of haircuts.

| Number of haircuts | Total fixed costs (\$) | Total variable costs (\$) | Marginal cost (\$) |
|--------------------|------------------------|---------------------------|--------------------|
| 1                  | 50                     | 12                        |                    |
| 2                  | 50                     | 18                        |                    |
| 3                  | 50                     | 26                        |                    |
| 4                  | 50                     | 36                        |                    |

Which **one** of the following is the marginal cost of increasing the number of haircuts from 2 to 3? You may use the blank column for your workings.

- ☐ A \$4.00
- ☐ B \$8.00
- ☐ C \$8.66
- ☐ D \$12.50

(Total for Question 2 = 1 mark)



- 4 The table shows the total costs of a clothing manufacturer producing jeans at different levels of output.

| Output | Total costs<br>\$ |
|--------|-------------------|
| 0      | 40 000            |
| 10 000 | 60 000            |
| 20 000 | 100 000           |
| 30 000 | 160 000           |
| 40 000 | 240 000           |

What is the average fixed cost per unit if the firm produces 20 000 pairs of jeans?

- ☐ A \$2
- ☐ B \$3
- ☐ C \$4
- ☐ D \$5

(Total for Question 4 = 1 mark)

- 5 In 2002 the elasticity of demand for agricultural labour in South Africa was estimated to be  $-1.32$ .

Which **one** of the following is most likely to influence the elasticity of demand for agricultural labour?

- ☐ A The cost of capital required for farming relative to the cost of agricultural labour
- ☐ B The level of educational qualifications required to be an agricultural worker
- ☐ C The location of agricultural jobs in South Africa
- ☐ D The occupational and the geographical mobility of labour

(Total for Question 5 = 1 mark)



- 4 The table shows the total costs of a garment manufacturer at different levels of output.

| Output | Total costs (\$) |
|--------|------------------|
| 0      | 100 000          |
| 6 000  | 160 000          |
| 12 000 | 210 000          |
| 18 000 | 250 000          |
| 24 000 | 280 000          |

Which **one** of the following is the average variable cost if the garment manufacturer is producing 12 000 items?

- ☐ A \$8.33
- ☐ B \$9.17
- ☐ C \$10.00
- ☐ D \$17.50

(Total for Question 4 = 1 mark)

- 5 The table shows the price for an adult ticket at a particular cinema in Dhaka in 2024.

| Time      | Price (BDT) |
|-----------|-------------|
| Afternoon | 300         |
| Evening   | 450         |

Which **one** of the following best describes the reason for this price difference?

- ☐ A Demand is more price elastic in the afternoon
- ☐ B Demand is more price inelastic in the afternoon
- ☐ C Supply is perfectly elastic in the evening
- ☐ D Supply is more elastic in the evening

(Total for Question 5 = 1 mark)



**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1 and Figure 2, calculate Tata Steel's total costs for steel production in 2019. (2)
- (b) Explain what is meant by the term 'monopsony employer' (Extract C, line 11). (4)
- (c) With reference to Extract B, examine the likely effects of the proposed merger between Tata Steel and Thyssenkrupp on the profits of European car manufacturers. Illustrate your answer with an appropriate diagram. (8)
- (d) With reference to Extract C, analyse **two** reasons why the proposed merger between Tata Steel and Thyssenkrupp was blocked by the European Competition Commission. (6)
- (e) With reference to Extract A, Extract B and your own knowledge, discuss the benefits to Tata Steel and Thyssenkrupp of the proposed horizontal integration. Illustrate your answer with an appropriate diagram. (14)

## Sources for use with Section B.

## Tata Steel

Figure 1 Tata Steel's total revenue, 2015–2019, in billion Rupees (Rs)

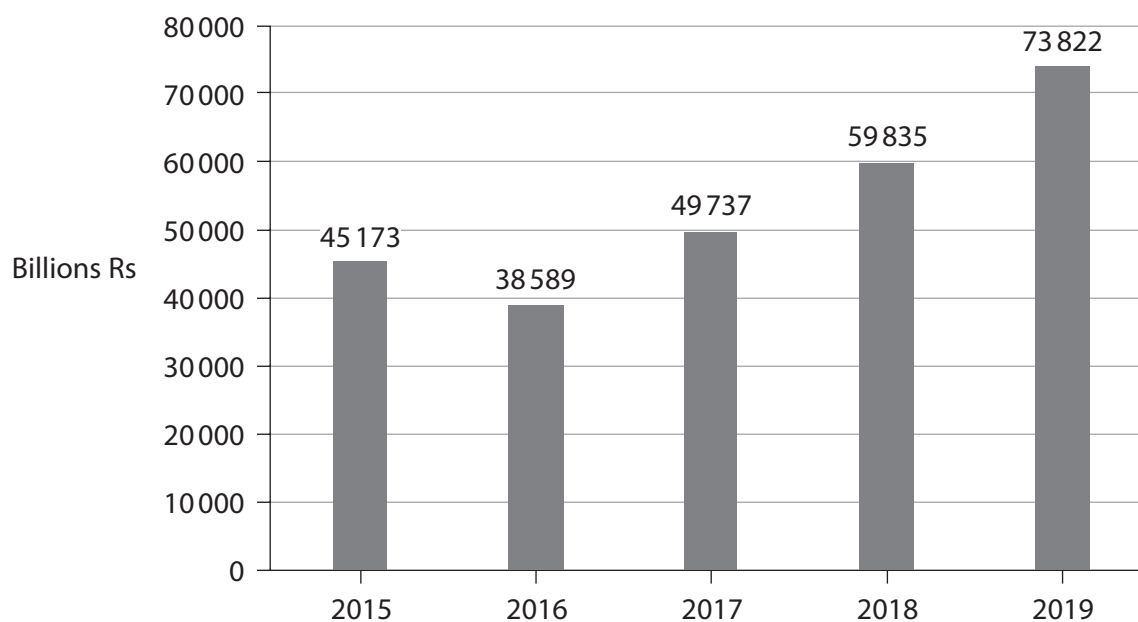
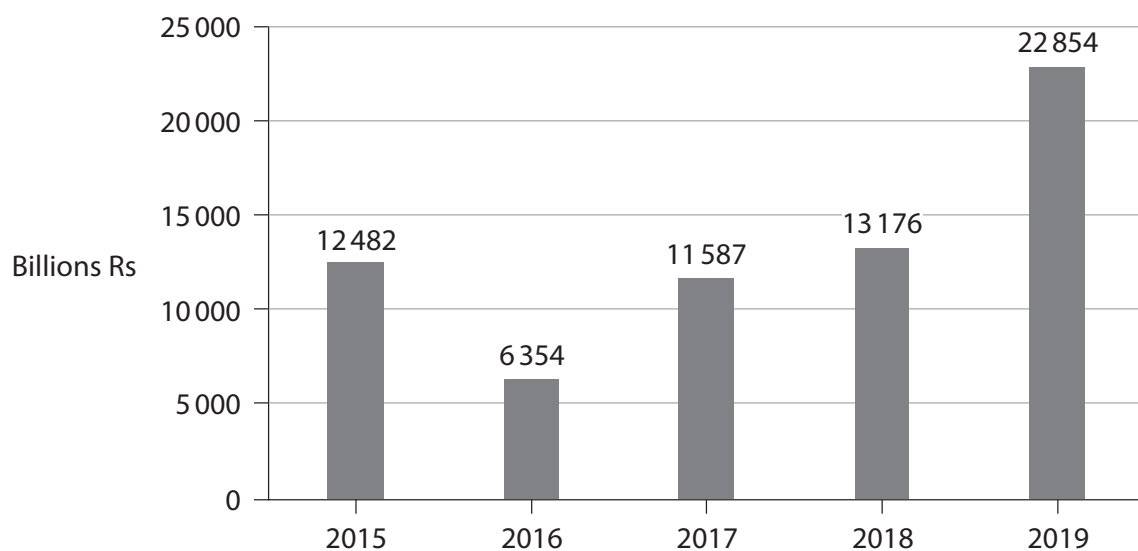


Figure 2 Tata Steel's profit, 2015–2019, in billion Rupees (Rs)



**Extract A The Indian steel industry**

India is the world's second largest steel producer. The growth in the Indian steel industry has been stimulated by the availability of iron ore and low-cost labour. Firms in this industry are dynamically efficient, using the latest technology in their production process.

5

Tata Steel is the largest steel producer in India with the capacity to produce 13 million tonnes per year. It is also one of the largest steel-producing companies globally and operates in 26 countries with major sites in India, the Netherlands and the UK. It employs 85 500 workers globally.

**Extract B Merger proposal**

The German steel producer, Thyssenkrupp, is Europe's second largest producer of high-value steel, followed by Tata Steel. In 2017 these companies planned to merge their European manufacturing operations. This integrated business would have 48 000 workers and generate €15 billion in sales.

5

The merged company would be based in the Netherlands and become the second largest European steel manufacturer. Even after this merger, ArcelorMittal SA would still be the largest European steel manufacturer.

The merger was proposed after the European steel industry had a 25% tariff (tax on imports) placed on its sales to the USA, its largest market. Since the tariffs were imposed, steel manufacturers experienced a fall in annual profits of between 8% and 17%.

10

The merged firm expected that improvements in efficiency would result in savings of over €400 million. It is planned to reduce staff by a total of 4 000 in administration and manufacturing. It also hoped that it could benefit from lower long-run average costs.

15

**Extract C Merger blocked**

In June 2019 the European Competition Commission blocked the proposed merger between Tata Steel and Thyssenkrupp. It concluded that the merger would cause a reduction in competition which would result in a significant increase in the price of steel. During the investigation the Commission received feedback from car manufacturers and firms in the packaging industry. These industries believed the merger would give Tata Steel and Thyssenkrupp more dominance in the market. This would be likely to result in higher costs of production that would make it difficult for firms in these industries to remain profitable.

5

Employees of Tata Steel and Thyssenkrupp were concerned that the merger would create a monopsony employer of steel workers in the UK and the Netherlands. Employees expected job losses and lower real wages. This would have a negative effect on their standard of living as they would have no alternative employer for their skill set.

10

**7** (a) With reference to Figure 1 and Figure 2, calculate Tata Steel's total costs for steel production in 2019.

(2)

(b) Explain what is meant by the term 'monopsony employer' (Extract C, line 11).

(4)

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

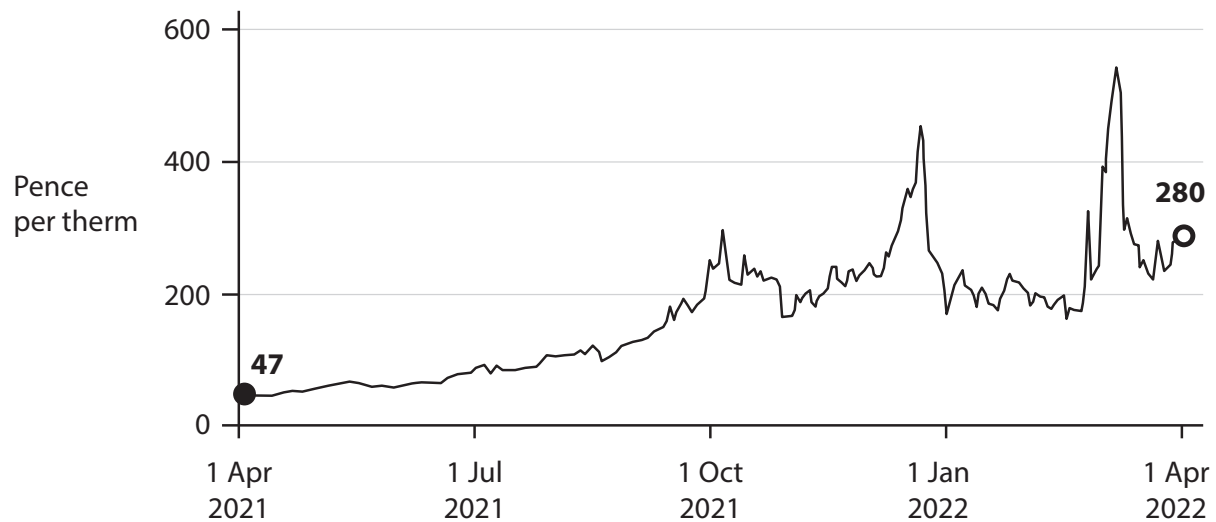
**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in the wholesale price of gas from 1 April 2021 to 1 April 2022. You are advised to show your working. (2)
- (b) With reference to Figure 2 and the second paragraph of Extract A, explain what is meant by the term 'concentration ratio'. (4)
- (c) With reference to Figure 2 and Extract A, analyse **two** barriers to entry that might prevent a new firm from entering the UK energy market. (6)
- (d) With reference to Figure 1 and Extract A, examine the impact of the increase in the wholesale price of natural gas on the cost of production for UK gas suppliers. (8)
- (e) With reference to Extract A and Extract B, discuss the likely effects of the increase in the energy price cap on both energy suppliers and consumers. (14)
- Illustrate your answer with an appropriate cost and revenue diagram.

## Sources for use with Section B

## The UK energy market

**Figure 1 The UK wholesale price of natural gas, pence per therm\*, 1 April 2021 to 1 April 2022**



\*A therm is a unit of heat

**Figure 2 Market share of companies supplying natural gas, Q4 2020 and Q4 2021 (%)**

|                                         | Q4 2020 | Q4 2021 |
|-----------------------------------------|---------|---------|
| <b>British Gas</b>                      | 26.9    | 27.6    |
| <b>E.ON Energy UK</b>                   | 12.5    | 14.7    |
| <b>Ovo</b>                              | 12.5    | 11.4    |
| <b>EDF UK</b>                           | 8.2     | 9.6     |
| <b>Scottish Power</b>                   | 8.0     | 7.9     |
| <b>Octopus</b>                          | 6.3     | 11.1    |
| <b>Other medium-sized gas suppliers</b> | 18.4    | 14.5    |
| <b>Small-sized gas suppliers</b>        | 7.2     | 3.2     |

**Extract A The UK energy market**

In 2021 the global wholesale price of natural gas increased significantly. This caused a large increase in the costs for UK companies supplying gas because they have to purchase gas at world market prices. Purchasing natural gas accounts for approximately 35% of the total costs for large gas suppliers. This increase in the wholesale price made it impossible for 31 smaller suppliers to cover their costs and resulted in them shutting down. 5

With the closure of many small suppliers, there was an increase in the concentration ratio in the market. The six largest suppliers controlled 82.3% of the market for gas by the end of 2021. These larger suppliers increased their market shares by acquiring new consumers from those firms that had left the market. For example, British Gas acquired 729 000 new consumers, EDF UK 580 000 new consumers and E.ON Energy UK 239 000 new consumers. This change in the market enabled these large suppliers to increase their output and achieve greater economies of scale. 10

It is expected that the energy regulator, Ofgem, will seek to increase barriers to entry in this market by strengthening regulations, to prevent similar disruptions happening again. In addition, Ofgem, announced plans to increase the energy price cap (the maximum price that a supplier can charge for energy to a consumer) from £1 277 per year to £1 971 in April 2022. This should help the surviving suppliers to remain in the industry and secure energy supply for consumers. 15  
20

**Extract B UK Government support for consumers**

The cost of living for consumers is set to rise significantly after the increase in the price cap. In response, the UK Government announced help for approximately 28 million households by providing a discount on energy bills worth £200 in 2022. Consumers would be required to pay this back to the Government over 5 years. There would also be a £150 cash payment to some households that will not need to be repaid. 5



7 (a) With reference to Figure 1, calculate the percentage change in the wholesale price of gas from 1 April 2021 to 1 April 2022. You are advised to show your working.

(2)

.....

.....

.....

.....

.....

.....

.....

.....

.....



**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the change in Uniqlo's total costs between 2021 and 2022. Show your workings. (2)
- (b) With reference to the first paragraph of Extract A, explain what is meant by the term 'organic growth'. (4)
- (c) With reference to the second paragraph of Extract A, analyse **two** reasons why Uniqlo has been very successful in establishing itself in international markets. (6)
- (d) With reference to Extract B, examine the likely impact of a reduction in Uniqlo's costs of production on its total profits. (8)
- Illustrate your answer with an appropriate diagram. (8)
- (e) With reference to Extract C, Figure 2 and your own knowledge, discuss the likely barriers to entry for a business wishing to enter the global fashion retail market. (14)



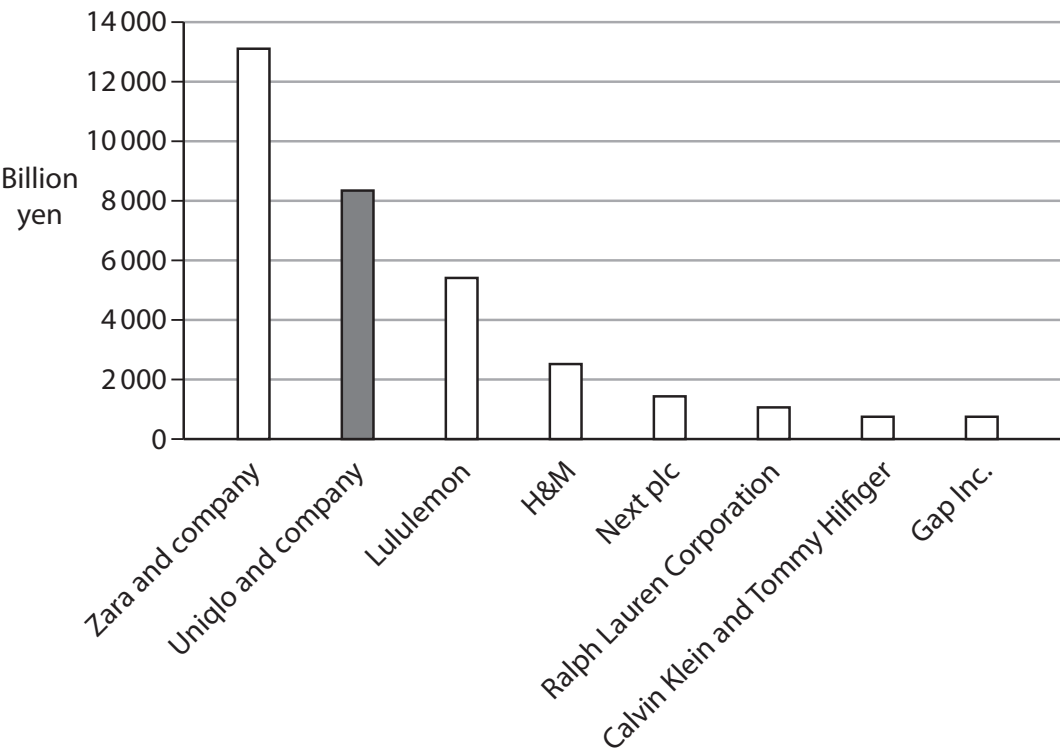
Sources for use with Section B

The global fashion retail market

Figure 1 Uniqlo’s total revenue and profit, billion yen, 2020–2022

| Year | Revenue<br>(billion yen) | Profit<br>(billion yen) |
|------|--------------------------|-------------------------|
| 2020 | 2 008                    | 975                     |
| 2021 | 2 132                    | 1 073                   |
| 2022 | 2 301                    | 1 206                   |

Figure 2 Global fashion retailers, ranked by market value, billion yen, February 2023



**Extract A Uniqlo's successful growth strategy**

Uniqlo is a Japanese fashion retailer. The company was set up in 1984 and it initially focused on the manufacturing and selling of casual, affordable clothing in Japan. In the 2000s Uniqlo started to sell in other countries such as the USA, China, UK, Australia and South Korea. Uniqlo expanded through a process of organic growth. The company opened stores in large cities within each country.

5

Uniqlo has been very successful in establishing itself in international markets. The business competes with other brands such as Zara and H&M by offering lower prices. Uniqlo has also used non-price competition to offer innovative products that meet its consumers' needs, such as ultra-lightweight and heat-generating fabrics (HeatTech). It also works with well-known designers and celebrities, such as Alexander Wang. The business has invested heavily in advertising and it was the first business in this market to use fast-moving digital images in its stores.

10

**Extract B Uniqlo's revenues and costs**

Between 2021 and 2022 Uniqlo's revenue increased by 7.9%. Demand for its products has steadily increased. One reason is that global financial pressures have caused consumers to demand quality items at lower prices.

In 2023 two factors may contribute to a reduction in Uniqlo's costs of production. It aims to negotiate lower prices from its suppliers, including for materials such as cotton and dyes. It is also replacing workers by investing in technology and automation.

5

However, in March 2023 Uniqlo had to increase wages for some employees by 40% in order to attract highly skilled labour. In addition, there was a global increase in the costs of raw materials.

10

**Extract C The global fashion retail market**

Uniqlo, H&M and Zara compete in the 'fast fashion' retail market. Fast fashion is where the businesses respond to the latest trends by supplying new affordable fashion items to the market very quickly. The retailers all offer low prices because they have significant bargaining power over their suppliers. They also provide desirable items because of their high-quality market research and their innovative designs. The businesses compete both online and in stores globally. The profits they make enable them to engage in extensive advertising campaigns.

5

In 2021 China was Uniqlo's largest international market with 917 stores. Uniqlo had a 1.4% share of the Chinese clothing market, larger than any other business. The rest of the market is made up of many small firms.

10





**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 2, calculate the change in AstraZeneca's total costs between 2021 and 2022.

You are advised to show your workings.

(2)

- (b) With reference to Extract B line 14, explain the term 'dynamic efficiency'.

(4)

- (c) With reference to Extract A, analyse **two** ways that pharmaceutical companies may benefit from external economies of scale.

(6)

- (d) With reference to the last paragraph of Extract B, examine the impact of the increase in fixed costs on AstraZeneca's profit.

Illustrate your answer with an appropriate diagram(s).

(8)

- (e) With reference to the information provided and your own knowledge, discuss the likely barriers that might prevent a new company from entering the pharmaceutical industry.

(14)



## Sources for use with Section B

## The pharmaceutical industry

**Figure 1 Largest pharmaceutical companies in Ireland, based on global revenue, \$ billion, 2022**

| Rank | Company           | Global revenue (\$bn) |
|------|-------------------|-----------------------|
| 1    | Pfizer            | 100.30                |
| 2    | Roche             | 69.77                 |
| 3    | Merck & Co        | 59.28                 |
| 4    | AbbVie            | 58.05                 |
| 5    | Bayer             | 53.88                 |
| 6    | Johnson & Johnson | 52.60                 |

**Figure 2 AstraZeneca's total global revenue and profit, \$ million, 2021 and 2022**

|               | 2021 (\$m) | 2022 (\$m) |
|---------------|------------|------------|
| Total revenue | 36 541     | 42 998     |
| Profit        | 1 056      | 3 757      |



**Extract A The pharmaceutical industry in Ireland**

Many large pharmaceutical companies have chosen to establish themselves in Ireland. The most important reason is the country's low rate of corporation tax which is set at 12.5% compared to 21% in the USA and 25% in the UK. Another reason for locating in Ireland is the speed at which new products are approved by Ireland's pharmaceutical regulatory authority.

5

Over 85 pharmaceutical companies operate in Ireland, enabling businesses located there to benefit from external economies of scale. These companies employ approximately 30 000 highly skilled workers. The Government of Ireland has invested heavily in improving roads and railways. In 2021 it announced plans for a further €35 billion investment into the country's transport system. There are many research partnerships between businesses and universities that share research and development (R&D) costs. These universities also help to ensure that students leave with the skills required to work in the pharmaceutical industry.

10

**Extract B AstraZeneca**

AstraZeneca is a UK-Swedish owned multinational pharmaceutical company that operates in over 100 countries around the world. In 2022 it was the tenth largest global pharmaceutical company, producing high quality medical equipment and pharmaceuticals for hospitals.

5

AstraZeneca has a good reputation for R&D. In 2022 it invested \$9.8 billion in R&D. This enabled it to:

- develop three new medicines
- continue research on medical advancements
- improve productive efficiency.

10

In 2023 AstraZeneca announced plans to invest \$400 million in building a new factory in Dublin, Ireland. This was a change from its previous plan to open a new factory in the UK. The company stated that it needed to reduce costs to be price competitive. At the same time this investment was necessary for the company to achieve dynamic efficiency.

One of the biggest problems facing AstraZeneca is the cost and time involved in producing new medicines. Also, the regulatory environment is complex because all pharmaceuticals must undergo clinical trials before medicines can be approved. The fixed costs associated with complying with these regulations have increased significantly. A low pricing strategy is critical to attract consumers because brand loyalty is low.

15

**Extract C The global pharmaceutical industry**

Although there are many companies in the pharmaceutical industry, they all own patents for their products. In the European Union these can last for up to 20 years. A business in this industry might spend up to 25% of its revenue on R&D. In 2022 Johnson & Johnson spent \$14.6 billion, Roche spent \$14.8 billion and AstraZeneca spent \$9.8 billion. This investment is risky because there is no guarantee of medical breakthroughs. Consequently, there are many mergers and frequent collaborations between pharmaceutical companies. For example, in 2022 there were 1 733 mergers and acquisitions in the industry.

5



7 (a) With reference to Figure 2, calculate the change in AstraZeneca’s total costs between 2021 and 2022.

You are advised to show your workings.

(2)

.....

.....

.....

.....

(b) With reference to Extract B line 14, explain the term ‘dynamic efficiency’.

(4)

.....

.....

.....

.....

.....

.....

.....

.....

.....



**SECTION B**

**Study Figure 1 and Extracts A and B in the Source Booklet before answering Question 7.**

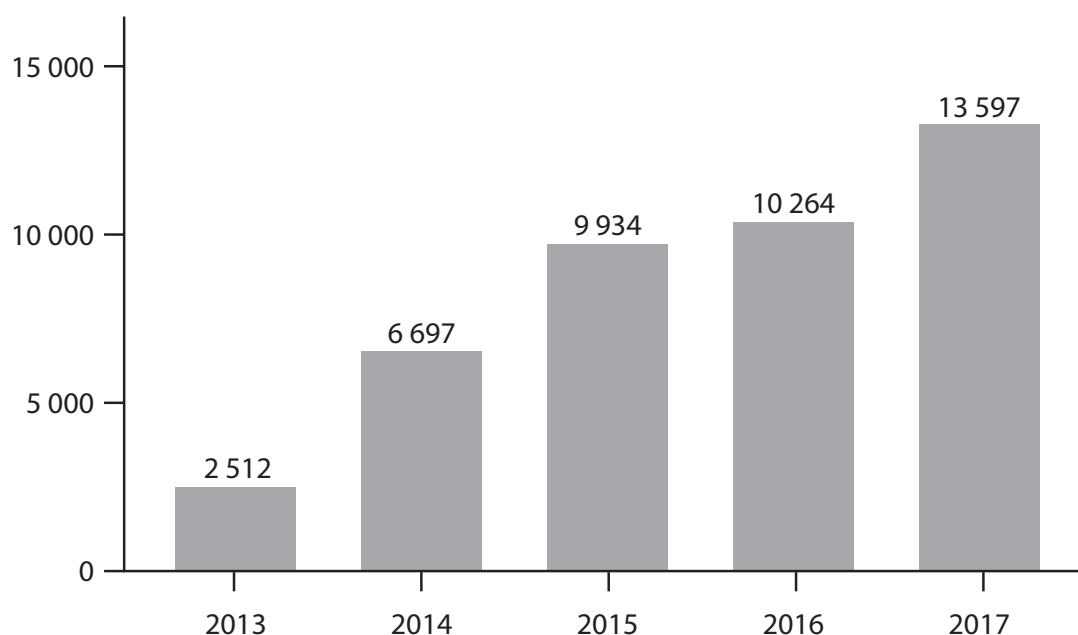
**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in electric car sales from 2013 to 2017. You are advised to show your working. (2)
- (b) With reference to Extract A and Extract B, explain what is meant by *specialisation*. (4)
- (c) With reference to Extract A, examine the likely effect of a decrease in variable costs on Tesla's profits.  
Illustrate your answer with an appropriate diagram(s). (8)
- (d) With reference to Extract B, analyse the relationship between price elasticity of demand and total revenue.  
Illustrate your answer with an appropriate diagram(s). (6)
- (e) With reference to the information provided, discuss the significance of barriers to entry and exit in the electric car market for new entrants, such as Dyson. (14)

## Sources for use with Section B.

## The electric car market

Figure 1 UK electric car registrations, 2013 – 2017



## Extract A Financial performance of Tesla

Tesla is a large American corporation that specialises in the production of electric cars. In January 2017 the company had a 30% market share for electric cars in the USA.

Between 2010 and March 2018, Tesla recorded only two profitable quarters. The company made its biggest quarterly loss of \$709.6 million in quarter one of 2018. It was failing to produce enough of its 'Model 3' mass market electric car. For example, 20 000 'Model 3' cars should have been produced in December 2017. However, during the whole of quarter four of 2017, Tesla manufactured only 2 425 cars.

5

The 'Model 3' is the most important part of Tesla's plan to become a mass market car manufacturer. At one stage, it had more than 500 000 potential consumers on its waiting list. However, in April 2018 the company admitted that some buyers had cancelled their orders for Tesla cars.

10

Senior managers have been looking for ways of decreasing the company's variable costs. This may require the sourcing of cheaper car parts and reducing the number of workers on production lines.

15

**Extract B New entrants in the luxury electric car market**

Dyson was established in 1991. It has become a very successful technology company with its headquarters in the UK. It specialises in the design and manufacture of domestic appliances such as vacuum cleaners, hand dryers and hair dryers. In 2018 Dyson employed 12 000 workers worldwide. The company has built a reputation for creating and producing a range of high quality and innovative products. 5

Its latest project is to design and produce an electric vehicle. Dyson plans to invest \$2.7 billion, split evenly between battery technology and vehicle development. Initially, the company will be targeting the luxury segment of the electric car market. This is a niche that Tesla almost exclusively occupies. Demand is significantly more price inelastic in this part of the market. 10

However, it is possible that barriers to entry and exit could create problems for Dyson. The experience of Apple may prove to be relevant. Apple abandoned its plans to manufacture electric cars when both the high initial capital costs and the complexities of the production process became apparent. 15

The badge on the front of a luxury car is all-important. Possibly a Dyson brand associated with domestic appliances might lack sufficient appeal for potential consumers. However, Dyson's previous success when marketing new products may be repeated in the electric car market.

There is also likely to be significant competition in the luxury electric car market. For example, Jaguar is about to launch the iPace, a competitor to Tesla's Model S. Porsche, Audi and BMW all have new luxury electric car models due to be on sale by late 2020. Several other companies are set to enter the market for luxury electric cars. 20

Finding buyers is another challenge. For example, Tesla had to spend heavily on setting up its own retail network to compete with the established distribution channels of the large car manufacturers. 25

Illustrate your answer with an appropriate diagram(s).

(8)



This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has rounded corners and a thin grey border around the edges.

**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage point change in the four-firm concentration ratio between 2020 and 2021. (2)
- (b) With reference to Extract A, analyse **two** reasons why India has become the world's second largest smartphone market. (6)
- (c) With reference to Extract B, explain what is meant by 'economies of scale'. (4)
- (d) With reference to Figure 2 and Extract B, examine the likely impact on the profits of Samsung of opening a smartphone factory in India.  
Use an appropriate diagram in your answer. (8)
- (e) With reference to Extract C, Figure 2 and your own knowledge, discuss the benefits of non-price competition for consumers and businesses in the Indian smartphone industry. (14)



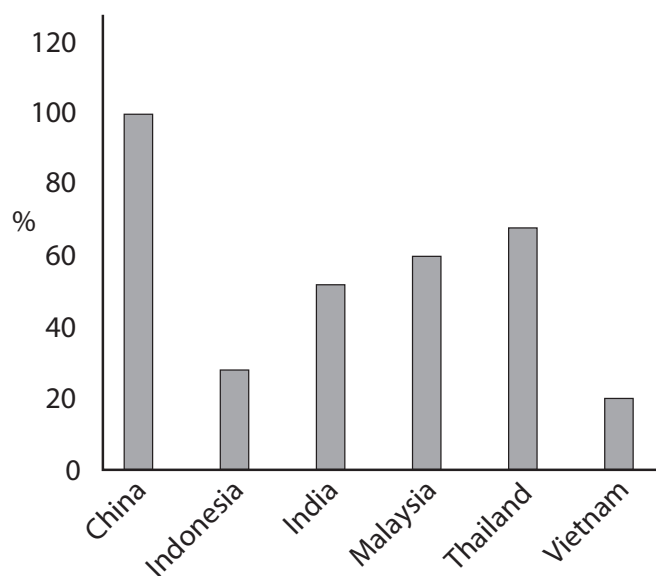
## Sources for use with Section B

## The Indian mobile phone market

Figure 1 Market shares of mobile phone companies in India, 2020 and 2021

|         | 2020 | 2021 |
|---------|------|------|
| Xiaomi  | 26%  | 21%  |
| realme  | 11%  | 17%  |
| Samsung | 20%  | 16%  |
| vivo    | 15%  | 13%  |
| OPPO    | 10%  | 9%   |
| Others  | 18%  | 24%  |

Figure 2 Hourly labour cost for selected countries as a percentage of China's hourly labour costs, September 2018



**Extract A The Indian smartphone market**

In October 2021 India's population was 1.38 billion, the second largest in the world after China. India's per capita real income increased from US\$ 1 000 in 2015 to US\$ 1 301 in 2020. It is predicted that incomes will continue to rise steadily over the next few years. India's large population and increasing disposable incomes have made it the world's second largest smartphone market. Over half the population of India owns a smartphone. It is expected that the market will grow from US\$ 25.1 billion in 2018–19 to US\$ 80 billion in 2025–26.

5

**Extract B The production of smartphones in India**

The manufacture of smartphones in India has increased significantly, making it the second largest manufacturing country after China. If production continues to rise at its current rate, India will soon become the global leader in smartphone production.

5

The Indian Government has been encouraging foreign direct investment (FDI) through the "Make in India" programme. This scheme offers tax relief for any companies manufacturing in India. The scheme also introduced a 12.5% tax on any imported phone components needed in the manufacturing process. This has caused an increase in the local production of handsets and phone components. Also, it is estimated that wages for skilled workers are 15% less in India than in China. As a result, Samsung Electronics, a South Korean company, opened the world's largest smartphone factory in India. The company will benefit from economies of scale and from reduced transport costs when selling its products in India, the Middle East and Africa. Foxconn, a Taiwanese company, moved its production of the new Apple iPhone from China to India to reduce long-run average costs.

10

15

There are several challenges facing smartphone producers in India. For example, the supply of components is insufficient to meet the level of demand. This forced some businesses to import more expensive and heavily taxed components from China. In addition, the power supply is not always reliable, reducing output and efficiency. Transportation can also be slow and costly. Poor roads and railways mean that it takes a long time for manufactured goods to reach the coast to be transported to other countries.

20

**Extract C Competition in the smartphone industry**

The smartphone industry in India is dominated by a few large businesses because smaller businesses find it difficult to compete on quality, functions and variety of smartphones. The large smartphone businesses mainly use non-price competition in order to increase market share. These strategies include advertising and branding, innovation, design and after-sales service.

5



(d) With reference to Figure 2 and Extract B, examine the likely impact on the profits of Samsung of opening a smartphone factory in India.

Use an appropriate diagram in your answer.

(8)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

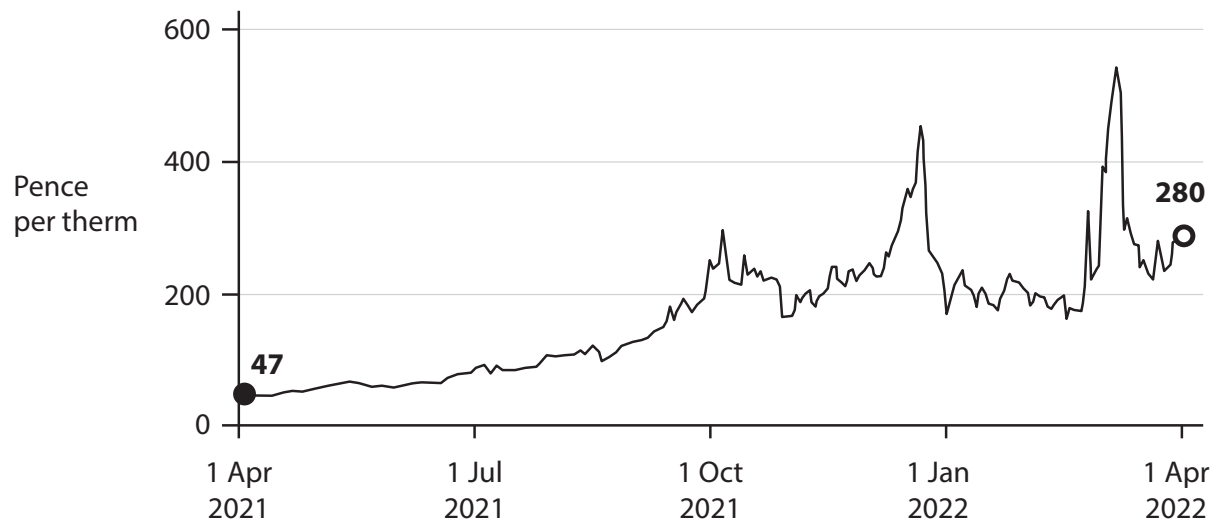
**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in the wholesale price of gas from 1 April 2021 to 1 April 2022. You are advised to show your working. (2)
- (b) With reference to Figure 2 and the second paragraph of Extract A, explain what is meant by the term 'concentration ratio'. (4)
- (c) With reference to Figure 2 and Extract A, analyse **two** barriers to entry that might prevent a new firm from entering the UK energy market. (6)
- (d) With reference to Figure 1 and Extract A, examine the impact of the increase in the wholesale price of natural gas on the cost of production for UK gas suppliers. (8)
- (e) With reference to Extract A and Extract B, discuss the likely effects of the increase in the energy price cap on both energy suppliers and consumers. (14)
- Illustrate your answer with an appropriate cost and revenue diagram.

## Sources for use with Section B

## The UK energy market

**Figure 1 The UK wholesale price of natural gas, pence per therm\*, 1 April 2021 to 1 April 2022**



\*A therm is a unit of heat

**Figure 2 Market share of companies supplying natural gas, Q4 2020 and Q4 2021 (%)**

|                                         | Q4 2020 | Q4 2021 |
|-----------------------------------------|---------|---------|
| <b>British Gas</b>                      | 26.9    | 27.6    |
| <b>E.ON Energy UK</b>                   | 12.5    | 14.7    |
| <b>Ovo</b>                              | 12.5    | 11.4    |
| <b>EDF UK</b>                           | 8.2     | 9.6     |
| <b>Scottish Power</b>                   | 8.0     | 7.9     |
| <b>Octopus</b>                          | 6.3     | 11.1    |
| <b>Other medium-sized gas suppliers</b> | 18.4    | 14.5    |
| <b>Small-sized gas suppliers</b>        | 7.2     | 3.2     |

**Extract A The UK energy market**

In 2021 the global wholesale price of natural gas increased significantly. This caused a large increase in the costs for UK companies supplying gas because they have to purchase gas at world market prices. Purchasing natural gas accounts for approximately 35% of the total costs for large gas suppliers. This increase in the wholesale price made it impossible for 31 smaller suppliers to cover their costs and resulted in them shutting down. 5

With the closure of many small suppliers, there was an increase in the concentration ratio in the market. The six largest suppliers controlled 82.3% of the market for gas by the end of 2021. These larger suppliers increased their market shares by acquiring new consumers from those firms that had left the market. For example, British Gas acquired 729 000 new consumers, EDF UK 580 000 new consumers and E.ON Energy UK 239 000 new consumers. This change in the market enabled these large suppliers to increase their output and achieve greater economies of scale. 10

It is expected that the energy regulator, Ofgem, will seek to increase barriers to entry in this market by strengthening regulations, to prevent similar disruptions happening again. In addition, Ofgem, announced plans to increase the energy price cap (the maximum price that a supplier can charge for energy to a consumer) from £1 277 per year to £1 971 in April 2022. This should help the surviving suppliers to remain in the industry and secure energy supply for consumers. 15  
20

**Extract B UK Government support for consumers**

The cost of living for consumers is set to rise significantly after the increase in the price cap. In response, the UK Government announced help for approximately 28 million households by providing a discount on energy bills worth £200 in 2022. Consumers would be required to pay this back to the Government over 5 years. There would also be a £150 cash payment to some households that will not need to be repaid. 5

(d) With reference to Figure 1 and Extract A, examine the impact of the increase in the wholesale price of natural gas on the cost of production for UK gas suppliers.

(8)



[illegible]

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 2, calculate the percentage change in the price of the Model 3 Rear Wheel Drive vehicle between January and October 2022. (2)
- (b) With reference to Extract A, analyse **two** reasons why sales of electric vehicles in China increased. (6)
- Illustrate your answer with a supply and demand diagram.
- (c) With reference to Figure 1 and Extract B, explain the market structure that best describes the electric vehicle market in China. (4)
- (d) With reference to the first two paragraphs of Extract B, examine the impact of Tesla producing its electric vehicles in China on its costs and profits. (8)
- Illustrate your answer with a costs and revenues diagram.
- (e) With reference to the information provided and your own knowledge, discuss the impact of Tesla reducing its prices on the behaviour of other electric vehicle manufacturers. (14)

Sources for use with Section B

The electric vehicle market in China

Figure 1 Market share for electric vehicle passenger sales, based on sales revenue, 2021

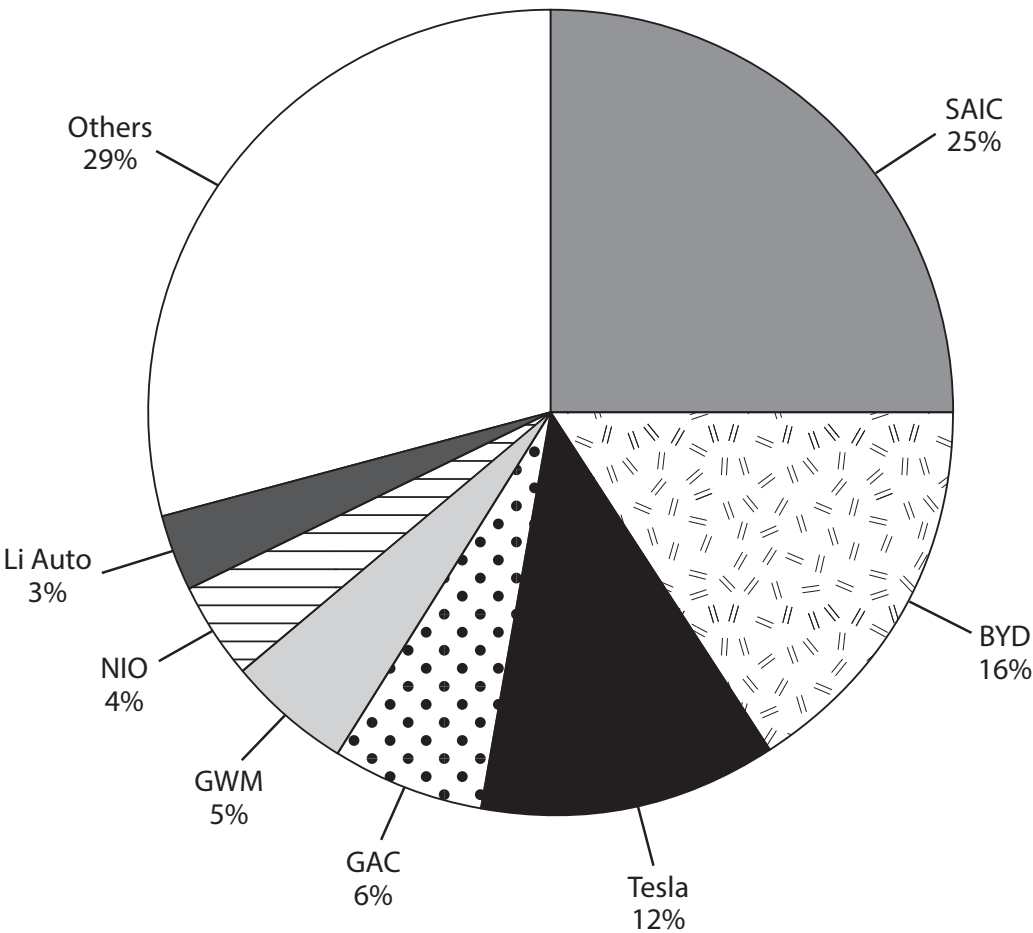


Figure 2 Tesla electric vehicle prices, 2022 (Yuan, 000s)

| Model of vehicle         | January 2022 | October 2022 |
|--------------------------|--------------|--------------|
| Model 3 Rear Wheel Drive | 280          | 266          |
| Model 3 Performance      | 368          | 350          |
| Model Y Rear Wheel Drive | 317          | 289          |
| Model Y Performance      | 418          | 398          |

**Extract A Changes in the Chinese electric vehicle market**

In 2020 the Chinese Government adopted many new measures to reduce CO<sub>2</sub> emissions, in order to meet its climate change goals by 2030. For example, the Government has increased the number of charging points and raised the tax on non-electric vehicles. The global increase in the price of fuel has also led to an increase in demand for electric vehicles. Between 2021 and 2022 the sales of electric vehicles in China increased by 83% to 5.92 million.

5

**Extract B Tesla in China**

Tesla, a US-owned vehicle company, has attempted to increase its sales in China to take advantage of the increasing demand for electric vehicles. In 2019 the company opened a factory in Shanghai. It became the first fully foreign-owned vehicle manufacturer in the country. By producing vehicles in China, Tesla was able to take advantage of government incentives, such as subsidies, aimed at promoting the domestic electric vehicle industry, as well as benefiting from low-cost labour. This new factory was expected to increase Tesla's competitiveness in the Chinese market by making its vehicles more affordable for consumers. China has become a key manufacturing centre for Tesla. Its factory in Shanghai produced over 710 000 vehicles in 2022. This represented 52% of the company's worldwide output.

5

10

However, production has been difficult in China. Tesla faced supply chain disruptions as a result of the global health crisis of 2020 to 2022. This resulted in a reduction in output and an increase in its costs of production. Tesla also had to pay taxes on imported components and finished vehicles.

15

In October 2022 Tesla reduced the price of several of its electric vehicles. The two main reasons for these price reductions were:

- a fall in its production costs arising from government subsidies to electric car manufacturers
- improved efficiency from manufacturing in Shanghai.

20

The lower prices of Tesla's electric vehicles had a significant impact on its competitors. Domestic and other international manufacturers responded by reducing their prices for electric vehicles as they competed for market share.

(d) With reference to the first two paragraphs of Extract B, examine the impact of Tesla producing its electric vehicles in China on its costs and profits.

Illustrate your answer with a costs and revenues diagram.

(8)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

**SECTION B**

**Study Figure 1 and Extracts A and B in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1 and Extract A, calculate the number of workers employed by SMEs in Bangladesh. You are advised to show your workings. (2)
- (b) With reference to Figure 1 and Extract A, explain what is meant by the term 'monopolistic competition'. (4)
- (c) With reference to Extract B, examine the impact of rising energy costs on the profits of a garment manufacturer in Bangladesh. Illustrate your answer with an appropriate diagram. (8)
- (d) With reference to extract B, analyse **two** likely effects on the labour market for garment workers of the possible increase in the minimum wage to 22 000 taka. (6)
- (e) With reference to Extract A and your own knowledge, discuss the likely effects of Government policies on the productive efficiency of SMEs. (14)



## Sources for use with Section B

## Size of businesses and labour markets in Bangladesh

Figure 1 Size of businesses, 2022

| Size   | Number of businesses | % of total number of businesses | % of working population employed |
|--------|----------------------|---------------------------------|----------------------------------|
| Small  | 33 050               | 77.2                            | 20.2                             |
| Medium | 6 103                | 14.3                            | 20.7                             |
| Large  | 3 639                | 8.5                             | 59.1                             |

**Extract A Government support for small-sized and medium-sized enterprises (SMEs)**

Bangladesh is a developing country located in South Asia with a population of over 160 million. In 2022 the number of people employed was 60.8 million. Its economy is heavily dependent on agriculture and on the production of garments and textiles. Bangladesh has made considerable progress in improving its rate of economic growth. The country's real GDP grew at an average rate of 6.5% per year between 2011 and 2020.

5

Many SMEs compete in the agriculture, garment and textile industries. Most businesses in these industries operate in monopolistically competitive markets. However, low-skilled labour, a lack of innovation and limited access to finance restrict the differentiation of products between businesses in these markets.

10

To meet these challenges the Government of Bangladesh adopted several policies to support SMEs. These include:

- creating the SME Foundation that provides training and funds for research and development
- providing finance for the creation of industrial parks (locations where SMEs can all locate together)
- investing in the quality of infrastructure within industrial parks
- establishing loan schemes to support SMEs
- providing subsidies to SMEs in agriculture, energy and those that export
- encouraging SMEs to adopt new technologies, including artificial intelligence.

15

20

However, critics of these policies have suggested that the Government needs to focus on reducing excessive administrative costs, deregulation and improving the quality of education.

25



**Extract B Minimum wages in the garment industry**

In April 2022 the minimum wage for all workers in Bangladesh not covered by industry-specific agreements was only 1 500 taka per month. However, some sectors have higher minimum wages. For example, the minimum wage for the country's 4.4 million garment workers was 8 000 taka per month. The Government has been under pressure from trade unions to increase this rate to 22 000 taka per month. The trade unions argue that recent high rates of inflation, and the fact the minimum wage for garment workers has not increased since 2018, have decreased the real incomes of its members. 5

Garment manufacturers argue that they do not have the funds to pay a higher minimum wage because they are already having to claim subsidies from the Government to cope with rising energy costs. In 2022 garment manufacturers experienced a 50% increase in energy costs. 10



(8)

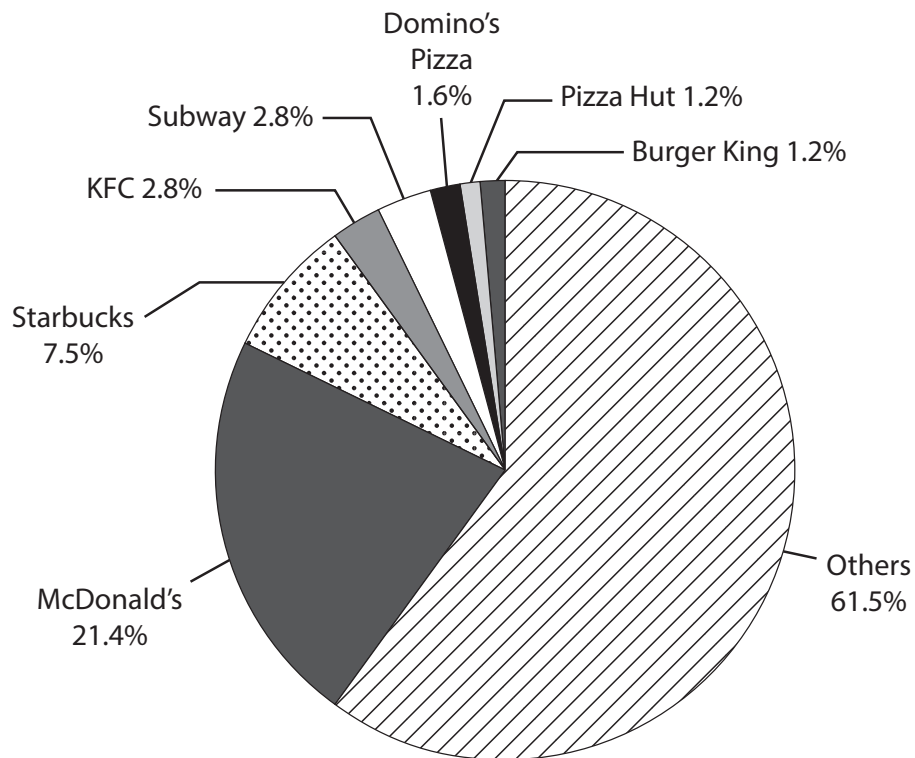


This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has rounded corners and a thin grey border around the edges.

**SECTION B**

**Study Figure 1 and Extracts A, B and C in the Source Booklet before answering Question 7.  
Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the 4-firm concentration ratio of the global fast-food industry.  
You are advised to show your workings. (2)
- (b) With reference to Extract C, explain what is meant by organic growth. (4)
- (c) With reference to Extract A, analyse **two** reasons why the global fast-food market is expected to grow. (6)
- (d) With reference to the last paragraph of Extract B, examine the likely impact on McDonald's profits by switching 'to suppliers that use more ethical and sustainable methods of production'.  
Illustrate your answer with an appropriate diagram. (8)
- (e) With reference to Figure 1, Extract C and your own knowledge, discuss the likely effects of McDonald's opening CosMc's on its competitors. (14)

**Sources for use with Section B****The fast-food industry****Figure 1 Global market share of companies in the fast-food industry, 2023**

**Extract A The global fast-food market**

The global increase in fast-food consumption has been caused by several factors:

- a rise in the number of people living in cities. For example, between 2010 and 2021, the population living in cities increased from 3.59 billion to 4.59 billion
- changes in people's lifestyles has led to limited time for individuals to spend preparing meals 5
- the affordability of fast food has made it popular as a result of slow wage growth and increased living costs
- the large marketing expenditures and branding strategies of the companies in the fast-food industry. For example, in 2020, fast-food companies spent \$4.5 billion on advertising 10
- greater use of mobile applications by consumers to order fast food for home delivery. For example, in 2023, Zomato was downloaded 52 million times and Uber Eats 41 million times.

However, in many countries there is an increased awareness of health risks associated with consuming fast food, such as heart disease and obesity. This has led to changes in consumer behaviour as evidenced by an increase in demand for fresh food and organic food that use locally sourced ingredients. 15

**Extract B McDonald's**

McDonald's Corporation is an American business that operates over 40 275 restaurants worldwide. It produces a range of fast foods including burgers, fries, salads and drinks. In 2023 its assets were valued at \$170 billion and it was the fourth-largest employer globally, employing over 1.9 million workers. McDonald's has over 70 million customers daily, selling an average of 80 burgers every minute. 5

In recent years, McDonald's has had to adapt its products to meet changing consumer preferences. McDonald's has made significant changes to provide healthy options for its customers. For example, it has expanded its menu to include salads, fruit bags and lower-calorie alternatives. 10

Moreover, McDonald's has switched to suppliers that use more ethical and sustainable methods of production. As a result, McDonald's costs of production have increased. The purpose of this change of suppliers was to make a positive impact on the planet. For example, McDonald's now uses:

- deforestation-free supply chains for beef 15
- sustainable fisheries for fish
- sustainable palm oil production
- locally-sourced ingredients to reduce its carbon footprint.



**Extract C McDonald's opens CosMc's**

In December 2023 McDonald's opened a new café called CosMc's. It sells a variety of drink and food options. CosMc's has a menu of drinks such as coffees and teas, with the ability to customise them. There are also limited food choices for on-the-go eating. McDonald's aims to compete with Starbucks in the growing beverage market and plans to open CosMc's in 10 different locations, mainly in Texas, USA, by December 2024. McDonald's is planning to establish 10 000 new CosMc's cafés worldwide by 2027.

5

**Acknowledgements****Figure 1 adapted from:**

<https://www.zippia.com/advice/burger-king-statistics/>

**Extract A adapted from:**

<https://www.foodbusinessnews.net/articles/22941-fast-foods-future>

<https://www.fortunebusinessinsights.com/fast-food-market-106482>

[https://www.reportlinker.com/market-report/Food-Services/9301/Fast-Food?term=fast%20food%20statistics&matchtype=b&loc\\_interest=&loc\\_physical=1006925&utm\\_group=standard&utm\\_term=fast%20food%20statistics&utm\\_campaign=ppc&utm\\_source=google\\_ads&utm\\_medium=paid\\_ads&utm\\_content=transactionnel-3&gad\\_source=1&gclid=Cj0KCQiAtaOtBhCwARIsAN\\_x-3KQ6IPGiHO3NjUBbVH-IBGUv39amVw5J1Drqhoe\\_falcV\\_B46MrgW8aAnhVEALw\\_wcB](https://www.reportlinker.com/market-report/Food-Services/9301/Fast-Food?term=fast%20food%20statistics&matchtype=b&loc_interest=&loc_physical=1006925&utm_group=standard&utm_term=fast%20food%20statistics&utm_campaign=ppc&utm_source=google_ads&utm_medium=paid_ads&utm_content=transactionnel-3&gad_source=1&gclid=Cj0KCQiAtaOtBhCwARIsAN_x-3KQ6IPGiHO3NjUBbVH-IBGUv39amVw5J1Drqhoe_falcV_B46MrgW8aAnhVEALw_wcB)

**Extract B adapted from:**

<https://corporate.mcdonalds.com/corpmcd/home.html>

<https://officechai.com/learn/the-biggest-employers-in-the-world-by-workforce/>

<https://www.enterpriseappstoday.com/stats/mcdonalds-statistics.html>

<https://www.theguardian.com/business/2007/jul/05/lifeandhealth.consumerandethicalliving>

**Extract C adapted from:**

<https://www.independent.co.uk/voices/mcdonalds-cosmcs-cafe-independent-coffee-shops-capitalism-b2461310.html>

<https://www.independent.co.uk/life-style/cosmcs-mcdonalds-menu-spinoff-b2460726.html>



(d) With reference to the last paragraph of Extract B, examine the likely impact on McDonald's profits by switching 'to suppliers that use more ethical and sustainable methods of production'.

Illustrate your answer with an appropriate diagram.

(8)





**SUB-TOPIC 3.3.2.3**

# **ECONOMIES AND DISECONOMIES OF SCALE**

Sub-topic 3.3.2.3 · 9 questions · 49 marks · lowest tariff first



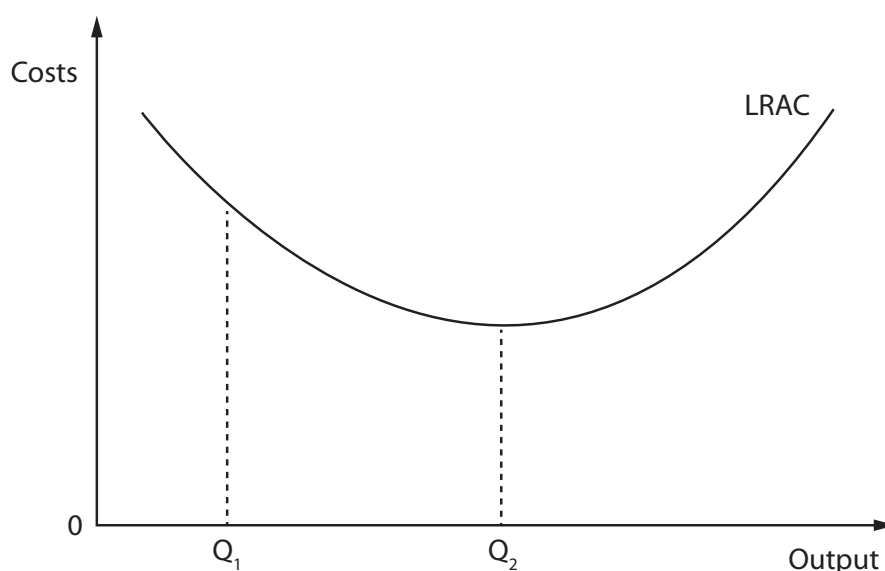
- 3 In 2016 workers in the USA were changing jobs less frequently than at any time since the 1970s.

Which **one** of the following can be deduced from the above information?

- ☐ A There had been a decrease in the skills of the workforce
- ☐ B There had been a decrease in house prices and rents
- ☐ C There had been an increase in transferable skills
- ☐ D There had been an increase in the number of job vacancies

(Total for Question 3 = 1 mark)

- 4 The diagram shows a long-run average cost curve for a firm.



Which **one** of the following must be true as output rises from point  $Q_1$  to point  $Q_2$ ?

- ☐ A There are diminishing returns
- ☐ B There are economies of scale
- ☐ C There are diseconomies of scale
- ☐ D There are falling total costs

(Total for Question 4 = 1 mark)

## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

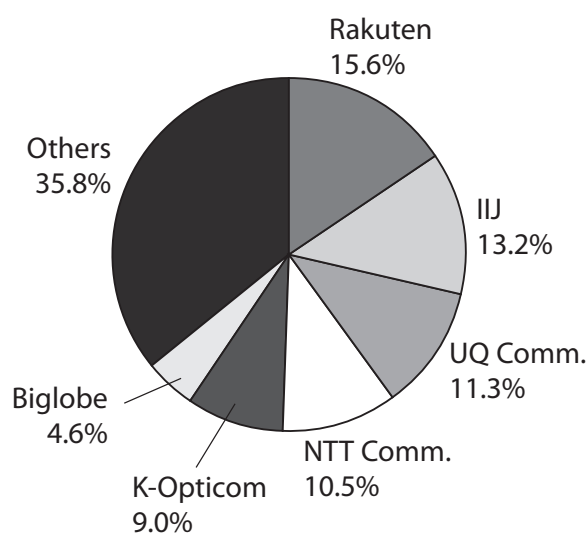
- 1 In December 2020 Electronic Arts, an American video game producer, agreed to take over Codemasters, the producer of Formula One racing video games.

Which **one** of the following is likely to be a benefit of this takeover for Electronic Arts?

- ☐ A An increase in contestability in the video games market
- ☐ B A decrease in total costs of production
- ☐ C An increase in competition in the video games market
- ☐ D A decrease in long-run average costs

(Total for Question 1 = 1 mark)

- 2 The chart shows the market share for mobile virtual network operators (MVNOs) in Japan for 2019.



What was the five firm concentration ratio for MVNOs in Japan for 2019?

- ☐ A 48.6%
- ☐ B 50.6%
- ☐ C 59.6%
- ☐ D 86.4%

(Total for Question 2 = 1 mark)

## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☐. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☐.

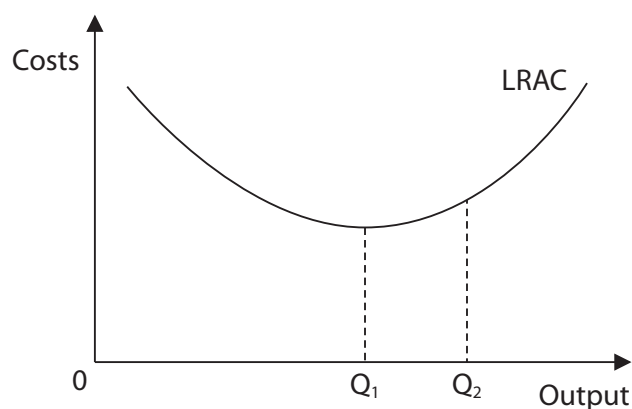
- 1 In 2022 the entertainment production companies Sony Picture Networks India and Zee Entertainment Enterprises Ltd signed an agreement to merge.

Which **one** of the following best describes this type of merger?

- ☐ A Forward vertical integration
- ☐ B Backward vertical integration
- ☐ C Horizontal integration
- ☐ D Conglomerate integration

(Total for Question 1 = 1 mark)

- 2 The diagram shows a long-run average cost curve for a firm.



Which **one** of the following must be true as output rises from  $Q_1$  to  $Q_2$ ?

- ☐ A Marginal costs are falling
- ☐ B There are economies of scale
- ☐ C Marginal costs are constant
- ☐ D There are diseconomies of scale

(Total for Question 2 = 1 mark)

## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

- 1 In 2021, Koji Sato, the CEO of Toyota, stated that technical economies of scale were one of the main reasons for the company's success.

Which **one** of the following results from technical economies of scale?

- ☐ A An increase in purchasing economies
- ☐ B A decrease in advertising costs
- ☐ C An increase in short-run average costs
- ☐ D A decrease in long-run average costs

(Total for Question 1 = 1 mark)

- 2 The table shows the costs for a small hairdressing business as it increases the number of haircuts.

| Number of haircuts | Total fixed costs (\$) | Total variable costs (\$) | Marginal cost (\$) |
|--------------------|------------------------|---------------------------|--------------------|
| 1                  | 50                     | 12                        |                    |
| 2                  | 50                     | 18                        |                    |
| 3                  | 50                     | 26                        |                    |
| 4                  | 50                     | 36                        |                    |

Which **one** of the following is the marginal cost of increasing the number of haircuts from 2 to 3? You may use the blank column for your workings.

- ☐ A \$4.00
- ☐ B \$8.00
- ☐ C \$8.66
- ☐ D \$12.50

(Total for Question 2 = 1 mark)



## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross ☐. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☐.

- 1 Integris, a UK-based management services business, was founded in 2021 as a result of the merger of several businesses providing similar services. This enabled it to benefit from internal economies of scale.

Which **one** of the following is an example of internal economies of scale?

- ☐ A Availability of a skilled labour force
- ☐ B Access to transport links
- ☐ C Lower corporation tax
- ☐ D Purchasing supplies in bulk

(Total for Question 1 = 1 mark)

- 2 A monopoly sets its price at the output where average revenue is equal to average cost.

Which **one** of the following best describes this firm's objective?

- ☐ A Revenue maximisation
- ☐ B Profit maximisation
- ☐ C Sales maximisation
- ☐ D Profit satisficing

(Total for Question 2 = 1 mark)

- 3 In 2024, the Government of Japan decided to subsidise construction companies to modernise old homes in the city of Kyoto.

*Ceteris paribus*, which **one** of the following is the most likely impact of this policy?

- ☐ A The price elasticity of supply of construction workers would increase
- ☐ B The demand for construction workers would increase
- ☐ C The skills of construction workers would decrease
- ☐ D Wage rates for construction workers would decrease

(Total for Question 3 = 1 mark)



**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage point change in the four-firm concentration ratio between 2020 and 2021. (2)
- (b) With reference to Extract A, analyse **two** reasons why India has become the world's second largest smartphone market. (6)
- (c) With reference to Extract B, explain what is meant by 'economies of scale'. (4)
- (d) With reference to Figure 2 and Extract B, examine the likely impact on the profits of Samsung of opening a smartphone factory in India.  
Use an appropriate diagram in your answer. (8)
- (e) With reference to Extract C, Figure 2 and your own knowledge, discuss the benefits of non-price competition for consumers and businesses in the Indian smartphone industry. (14)

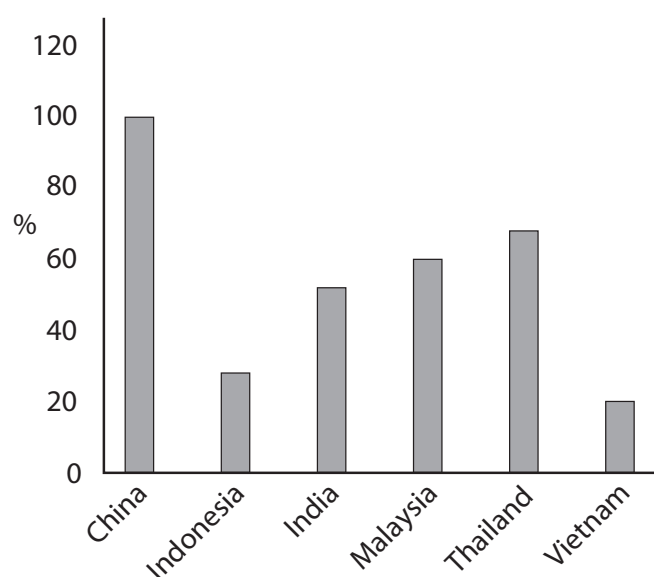
## Sources for use with Section B

## The Indian mobile phone market

Figure 1 Market shares of mobile phone companies in India, 2020 and 2021

|         | 2020 | 2021 |
|---------|------|------|
| Xiaomi  | 26%  | 21%  |
| realme  | 11%  | 17%  |
| Samsung | 20%  | 16%  |
| vivo    | 15%  | 13%  |
| OPPO    | 10%  | 9%   |
| Others  | 18%  | 24%  |

Figure 2 Hourly labour cost for selected countries as a percentage of China's hourly labour costs, September 2018



**Extract A The Indian smartphone market**

In October 2021 India's population was 1.38 billion, the second largest in the world after China. India's per capita real income increased from US\$ 1 000 in 2015 to US\$ 1 301 in 2020. It is predicted that incomes will continue to rise steadily over the next few years. India's large population and increasing disposable incomes have made it the world's second largest smartphone market. Over half the population of India owns a smartphone. It is expected that the market will grow from US\$ 25.1 billion in 2018–19 to US\$ 80 billion in 2025–26.

5

**Extract B The production of smartphones in India**

The manufacture of smartphones in India has increased significantly, making it the second largest manufacturing country after China. If production continues to rise at its current rate, India will soon become the global leader in smartphone production.

5

The Indian Government has been encouraging foreign direct investment (FDI) through the "Make in India" programme. This scheme offers tax relief for any companies manufacturing in India. The scheme also introduced a 12.5% tax on any imported phone components needed in the manufacturing process. This has caused an increase in the local production of handsets and phone components. Also, it is estimated that wages for skilled workers are 15% less in India than in China. As a result, Samsung Electronics, a South Korean company, opened the world's largest smartphone factory in India. The company will benefit from economies of scale and from reduced transport costs when selling its products in India, the Middle East and Africa. Foxconn, a Taiwanese company, moved its production of the new Apple iPhone from China to India to reduce long-run average costs.

10

15

There are several challenges facing smartphone producers in India. For example, the supply of components is insufficient to meet the level of demand. This forced some businesses to import more expensive and heavily taxed components from China. In addition, the power supply is not always reliable, reducing output and efficiency. Transportation can also be slow and costly. Poor roads and railways mean that it takes a long time for manufactured goods to reach the coast to be transported to other countries.

20

**Extract C Competition in the smartphone industry**

The smartphone industry in India is dominated by a few large businesses because smaller businesses find it difficult to compete on quality, functions and variety of smartphones. The large smartphone businesses mainly use non-price competition in order to increase market share. These strategies include advertising and branding, innovation, design and after-sales service.

5



(4)

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 2, calculate the change in AstraZeneca's total costs between 2021 and 2022.

You are advised to show your workings.

(2)

- (b) With reference to Extract B line 14, explain the term 'dynamic efficiency'.

(4)

- (c) With reference to Extract A, analyse **two** ways that pharmaceutical companies may benefit from external economies of scale.

(6)

- (d) With reference to the last paragraph of Extract B, examine the impact of the increase in fixed costs on AstraZeneca's profit.

Illustrate your answer with an appropriate diagram(s).

(8)

- (e) With reference to the information provided and your own knowledge, discuss the likely barriers that might prevent a new company from entering the pharmaceutical industry.

(14)

### Sources for use with Section B

#### The pharmaceutical industry

**Figure 1 Largest pharmaceutical companies in Ireland, based on global revenue, \$ billion, 2022**

| Rank | Company           | Global revenue (\$bn) |
|------|-------------------|-----------------------|
| 1    | Pfizer            | 100.30                |
| 2    | Roche             | 69.77                 |
| 3    | Merck & Co        | 59.28                 |
| 4    | AbbVie            | 58.05                 |
| 5    | Bayer             | 53.88                 |
| 6    | Johnson & Johnson | 52.60                 |

**Figure 2 AstraZeneca's total global revenue and profit, \$ million, 2021 and 2022**

|               | 2021 (\$m) | 2022 (\$m) |
|---------------|------------|------------|
| Total revenue | 36 541     | 42 998     |
| Profit        | 1 056      | 3 757      |



**Extract A The pharmaceutical industry in Ireland**

Many large pharmaceutical companies have chosen to establish themselves in Ireland. The most important reason is the country's low rate of corporation tax which is set at 12.5% compared to 21% in the USA and 25% in the UK. Another reason for locating in Ireland is the speed at which new products are approved by Ireland's pharmaceutical regulatory authority.

5

Over 85 pharmaceutical companies operate in Ireland, enabling businesses located there to benefit from external economies of scale. These companies employ approximately 30 000 highly skilled workers. The Government of Ireland has invested heavily in improving roads and railways. In 2021 it announced plans for a further €35 billion investment into the country's transport system. There are many research partnerships between businesses and universities that share research and development (R&D) costs. These universities also help to ensure that students leave with the skills required to work in the pharmaceutical industry.

10

**Extract B AstraZeneca**

AstraZeneca is a UK-Swedish owned multinational pharmaceutical company that operates in over 100 countries around the world. In 2022 it was the tenth largest global pharmaceutical company, producing high quality medical equipment and pharmaceuticals for hospitals.

5

AstraZeneca has a good reputation for R&D. In 2022 it invested \$9.8 billion in R&D. This enabled it to:

- develop three new medicines
- continue research on medical advancements
- improve productive efficiency.

10

In 2023 AstraZeneca announced plans to invest \$400 million in building a new factory in Dublin, Ireland. This was a change from its previous plan to open a new factory in the UK. The company stated that it needed to reduce costs to be price competitive. At the same time this investment was necessary for the company to achieve dynamic efficiency.

One of the biggest problems facing AstraZeneca is the cost and time involved in producing new medicines. Also, the regulatory environment is complex because all pharmaceuticals must undergo clinical trials before medicines can be approved. The fixed costs associated with complying with these regulations have increased significantly. A low pricing strategy is critical to attract consumers because brand loyalty is low.

15

**Extract C The global pharmaceutical industry**

Although there are many companies in the pharmaceutical industry, they all own patents for their products. In the European Union these can last for up to 20 years. A business in this industry might spend up to 25% of its revenue on R&D. In 2022 Johnson & Johnson spent \$14.6 billion, Roche spent \$14.8 billion and AstraZeneca spent \$9.8 billion. This investment is risky because there is no guarantee of medical breakthroughs. Consequently, there are many mergers and frequent collaborations between pharmaceutical companies. For example, in 2022 there were 1 733 mergers and acquisitions in the industry.

5



(6)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1 and Figure 2, calculate Tata Steel's total costs for steel production in 2019. (2)
- (b) Explain what is meant by the term 'monopsony employer' (Extract C, line 11). (4)
- (c) With reference to Extract B, examine the likely effects of the proposed merger between Tata Steel and Thyssenkrupp on the profits of European car manufacturers. (8)
- Illustrate your answer with an appropriate diagram.
- (d) With reference to Extract C, analyse **two** reasons why the proposed merger between Tata Steel and Thyssenkrupp was blocked by the European Competition Commission. (6)
- (e) With reference to Extract A, Extract B and your own knowledge, discuss the benefits to Tata Steel and Thyssenkrupp of the proposed horizontal integration. (14)
- Illustrate your answer with an appropriate diagram.

## Sources for use with Section B.

## Tata Steel

Figure 1 Tata Steel's total revenue, 2015–2019, in billion Rupees (Rs)

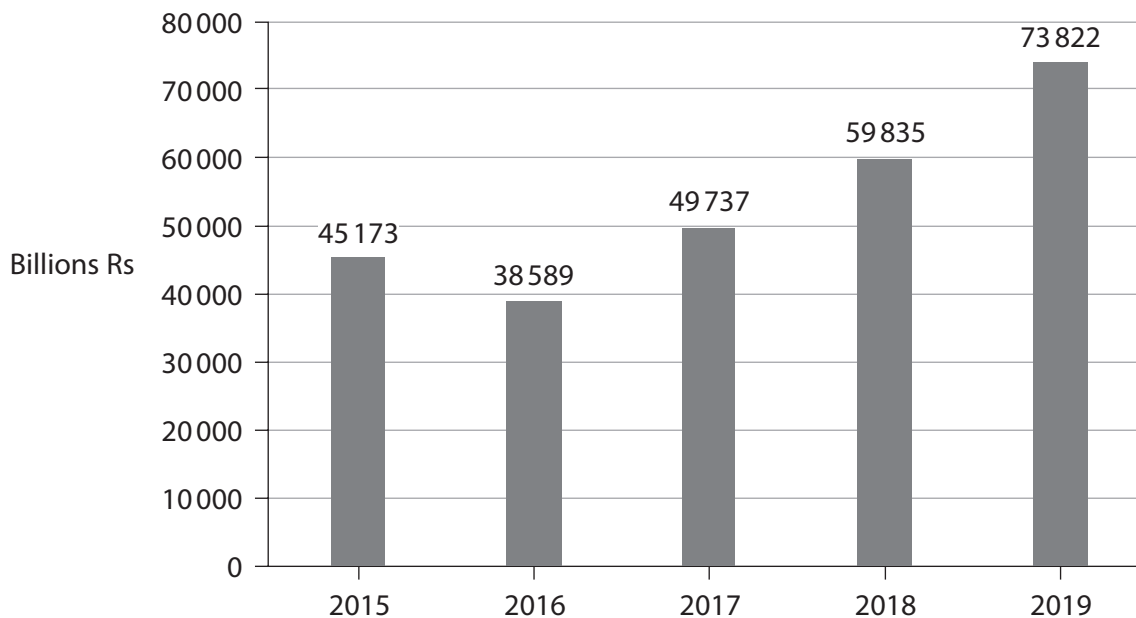
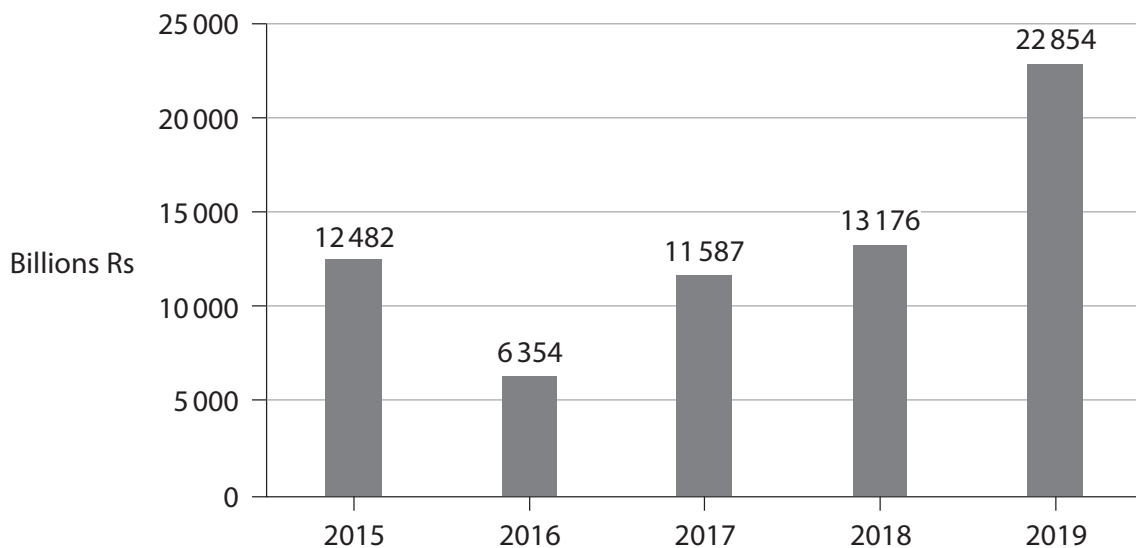


Figure 2 Tata Steel's profit, 2015–2019, in billion Rupees (Rs)



**Extract A The Indian steel industry**

India is the world's second largest steel producer. The growth in the Indian steel industry has been stimulated by the availability of iron ore and low-cost labour. Firms in this industry are dynamically efficient, using the latest technology in their production process.

5

Tata Steel is the largest steel producer in India with the capacity to produce 13 million tonnes per year. It is also one of the largest steel-producing companies globally and operates in 26 countries with major sites in India, the Netherlands and the UK. It employs 85 500 workers globally.

**Extract B Merger proposal**

The German steel producer, Thyssenkrupp, is Europe's second largest producer of high-value steel, followed by Tata Steel. In 2017 these companies planned to merge their European manufacturing operations. This integrated business would have 48 000 workers and generate €15 billion in sales.

5

The merged company would be based in the Netherlands and become the second largest European steel manufacturer. Even after this merger, ArcelorMittal SA would still be the largest European steel manufacturer.

The merger was proposed after the European steel industry had a 25% tariff (tax on imports) placed on its sales to the USA, its largest market. Since the tariffs were imposed, steel manufacturers experienced a fall in annual profits of between 8% and 17%.

10

The merged firm expected that improvements in efficiency would result in savings of over €400 million. It is planned to reduce staff by a total of 4 000 in administration and manufacturing. It also hoped that it could benefit from lower long-run average costs.

15

**Extract C Merger blocked**

In June 2019 the European Competition Commission blocked the proposed merger between Tata Steel and Thyssenkrupp. It concluded that the merger would cause a reduction in competition which would result in a significant increase in the price of steel. During the investigation the Commission received feedback from car manufacturers and firms in the packaging industry. These industries believed the merger would give Tata Steel and Thyssenkrupp more dominance in the market. This would be likely to result in higher costs of production that would make it difficult for firms in these industries to remain profitable.

5

Employees of Tata Steel and Thyssenkrupp were concerned that the merger would create a monopsony employer of steel workers in the UK and the Netherlands. Employees expected job losses and lower real wages. This would have a negative effect on their standard of living as they would have no alternative employer for their skill set.

10

(e) With reference to Extract A, Extract B and your own knowledge, discuss the benefits to Tata Steel and Thyssenkrupp of the proposed horizontal integration.

Illustrate your answer with an appropriate diagram.

(14)



113

**SECTION C****Answer TWO questions from this section.**

- 8** In Pakistan, internet services are provided by a monopolist, Pakistan Telecommunication Company Ltd (PTCL). The quality of the service offered is poor and the internet speed is slow resulting in a high level of complaints from consumers.

Evaluate policies that a government could use to control and regulate monopolies, such as PTCL.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 8 = 20 marks)**

- 9** In 2022 Belgium had an unemployment rate of 5.5% and a vacancy rate of 4.8%.

Evaluate policies that a government could use to reduce the geographical immobility of labour **and** the occupational immobility of labour.

Refer to industries of your choice in your answer.

**(Total for Question 9 = 20 marks)**

- 10** Nestlé is the largest manufacturer of pre-packaged food and beverages in the world, based on revenue. Its size has enabled it to reduce its average cost of production.

Evaluate the impact that the size of a business has on its efficiency.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 10 = 20 marks)**



SUB-TOPIC 3.3.2.4

# PROFITS AND LOSSES

Sub-topic 3.3.2.4 · 19 questions · 148 marks · lowest tariff first



## SECTION A

Answer ALL questions in this section.

Questions must be answered with a cross in a box ☐. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☐.

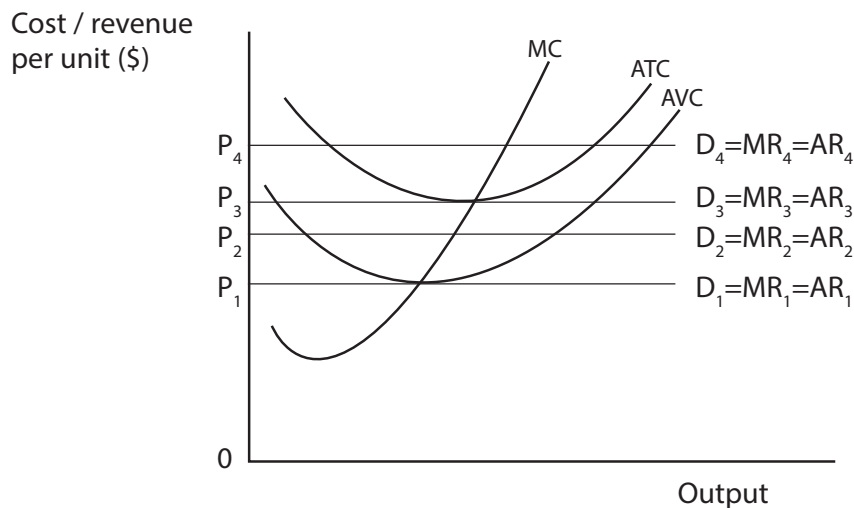
- 1 In 2018 the Competition and Markets Authority carried out an investigation into a proposed merger between two of the largest UK supermarket companies, Sainsbury's and Asda.

If approved, this type of merger would be an example of

- ☐ A conglomerate integration  
☐ B horizontal integration  
☐ C backward vertical integration  
☐ D forward vertical integration

(Total for Question 1 = 1 mark)

- 2 The diagram shows a firm operating in a perfectly competitive market. The firm has the objective of profit maximisation.



Which **one** of the following is true?

- ☐ A At a price of  $P_1$  the firm will shut down in the short-run  
☐ B At a price of  $P_2$  the firm will cover fixed costs and variable costs  
☐ C At a price of  $P_3$  the firm will shut down in the long-run  
☐ D At a price of  $P_4$  the firm will make supernormal profits

(Total for Question 2 = 1 mark)

**SECTION A**

**Answer ALL questions in this section.**

**Questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

**1** In 2020 the Turkish airline AtlasGlobal ceased its operations. Which **one** of the following will cause a firm to shut down in the short-run?

- ☐ **A** Average revenue was below marginal revenue
- ☐ **B** Average revenue equalled marginal cost
- ☐ **C** Average revenue was below average variable cost
- ☐ **D** Average revenue equalled average cost

**(Total for Question 1 = 1 mark)**



3 From September 2019 to September 2021 the US labour force participation rate fell.

Which **one** of the following is most likely to have caused this fall in the supply of labour?

- ☐ A An increase in benefit payments
- ☐ B An increase in net migration
- ☐ C An increase in the wage rate
- ☐ D An increase in productivity

(Total for Question 3 = 1 mark)

4 A car manufacturer employs 40 engineers at a wage rate of \$570 per week. To attract an additional worker, the car manufacturer must raise the wage rate for all engineers to \$590 per week.

What is the marginal cost of employing this additional worker?

- ☐ A \$20
- ☐ B \$820
- ☐ C \$1 390
- ☐ D \$24 190

(Total for Question 4 = 1 mark)

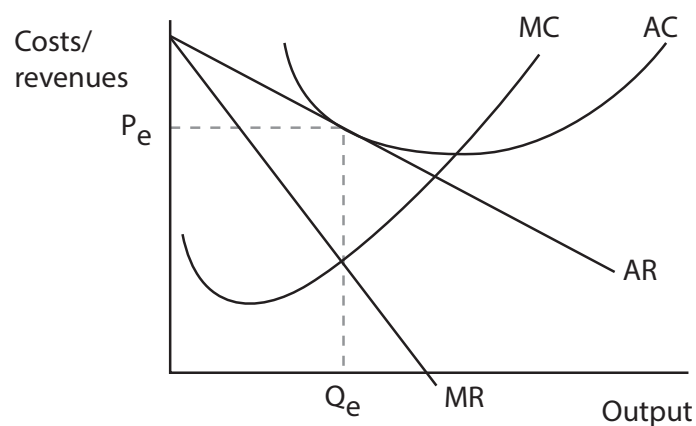
5 Between February 2020 and February 2021 approximately 65 000 businesses shut down in New Zealand. The majority of these closures were caused by a fall in revenue as a result of the global health crisis.

Which **one** of the following would cause a firm to shut down in the short-run?

- ☐ A Average revenue is above its average total cost of production
- ☐ B Average revenue is below its average total cost of production
- ☐ C Average revenue is above its average variable cost of production
- ☐ D Average revenue is below its average variable cost of production

(Total for Question 5 = 1 mark)

- 4 The diagram shows the short-run cost and revenue curves for a profit maximising street food business in Sri Lanka.



Which **one** of the following can be deduced from this diagram?

- ☐ A The firm is dynamically efficient
- ☐ B The firm is making normal profit
- ☐ C The firm operates in a perfectly competitive market
- ☐ D The firm will shut-down in the short-run

(Total for Question 4 = 1 mark)

- 5 A monopolist changes its objective from profit maximisation to sales volume maximisation.

Which **one** of the following is the most likely impact of this decision?

- ☐ A A fall in the number of workers employed by the firm
- ☐ B An increase in the price of the good
- ☐ C A fall in the firm's total fixed costs
- ☐ D An increase in the firm's output

(Total for Question 5 = 1 mark)

- 4 Big Bazaar is a large grocery retailer in India. It faces a downward-sloping average revenue curve and is making supernormal profits. In 2022 rental costs increased by an average of 6.5%.

*Ceteris paribus*, which **one** of the following combinations indicates the impact of this increase in rental costs on Big Bazaar?

|                            | Profit    | Price     |
|----------------------------|-----------|-----------|
| <input type="checkbox"/> A | No change | No change |
| <input type="checkbox"/> B | Rise      | Decrease  |
| <input type="checkbox"/> C | Fall      | No change |
| <input type="checkbox"/> D | No change | Decrease  |

(Total for Question 4 = 1 mark)

- 5 The table shows the total costs of a shirt manufacturer at different levels of output.

| Output | Total costs \$ |
|--------|----------------|
| 0      | 100 000        |
| 5 000  | 120 000        |
| 10 000 | 150 000        |
| 15 000 | 170 000        |
| 20 000 | 180 000        |

Which **one** of the following is the average fixed cost if the shirt manufacturer is producing 10 000 shirts?

- ☐ A \$5
- ☐ B \$6.67
- ☐ C \$10
- ☐ D \$20

(Total for Question 5 = 1 mark)

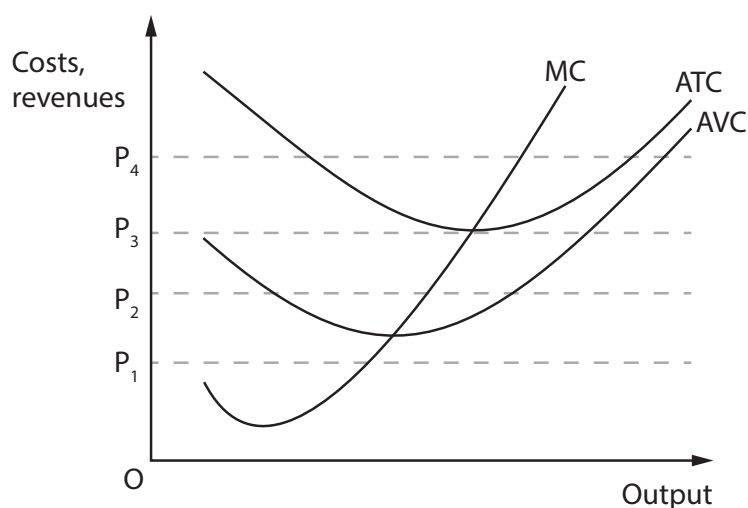
- 3 The elasticity of demand for labour for workers in the shipbuilding industry in France is estimated to be  $-0.88$ .

Which **one** of the following is most likely to cause the demand for labour to be inelastic?

- ☐ A Labour can be easily substituted by capital
- ☐ B The workers are all members of a trade union
- ☐ C There is a large supply of labour available to work in the industry
- ☐ D Labour costs are a small percentage of total costs

(Total for Question 3 = 1 mark)

- 4 The diagram shows marginal cost, average total cost and average variable cost curves for a profit-maximising sweetcorn producer in Argentina operating in a perfectly competitive market.



At which **one** of the following prices would the producer sell sweetcorn in the short-run but shut-down in the long-run?

- ☐ A  $P_1$
- ☐ B  $P_2$
- ☐ C  $P_3$
- ☐ D  $P_4$

(Total for Question 4 = 1 mark)

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in the average world price of coffee beans from 1 July 2017 to 1 May 2019. You are advised to show your working. (2)
- (b) With reference to Extract A (line 12), explain what is meant by 'short-run shutdown point.' (4)
- (c) With reference to Figure 2 and Extract A, analyse **two** possible reasons for the increase in supply of coffee beans between 2015 and 2019. (6)
- (d) With reference to Extract B, examine **two** barriers to entry into the US coffee shop market. (8)
- (e) With reference to the information provided, discuss the reasons for the increase in Starbucks' profits in 2019.  
For **one** of these reasons, illustrate your answer with an appropriate cost and revenue diagram. (14)

## Sources for use with Section B.

## The global coffee market

Figure 1 Average world price of coffee beans, \$ per kg, July 2017–May 2019

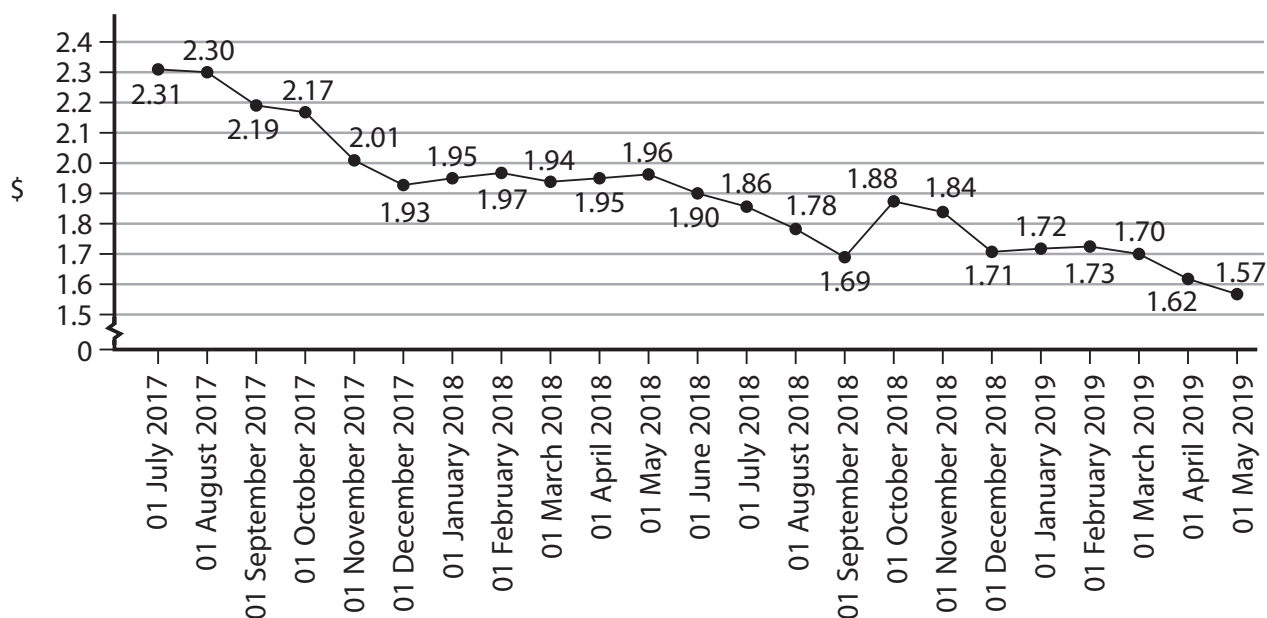
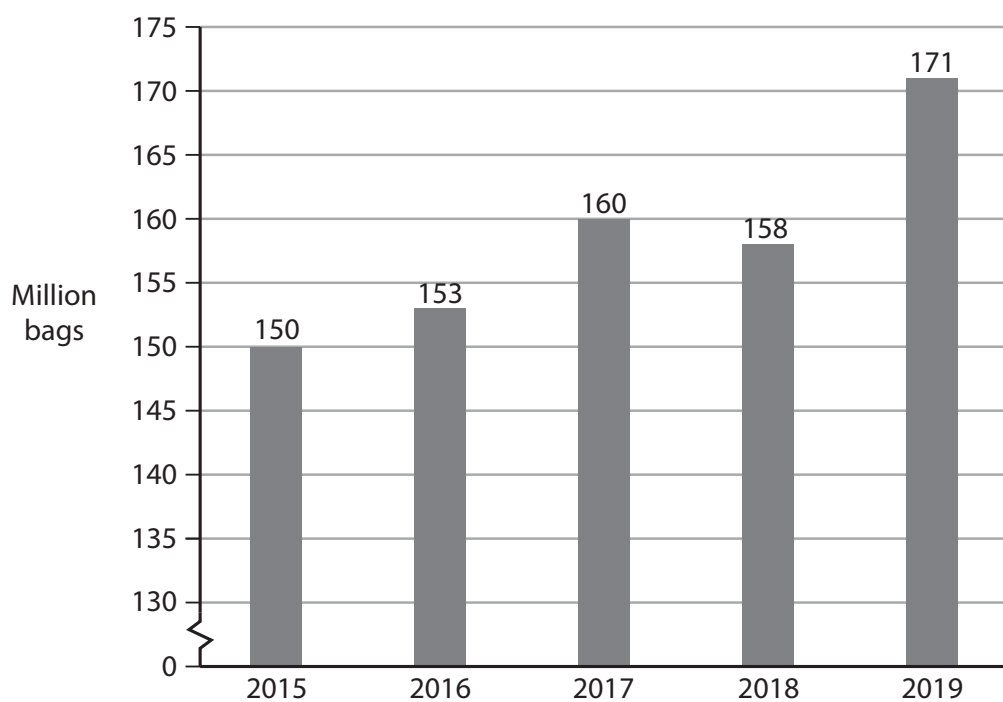


Figure 2 World coffee production, million bags, 2015–2019



**Extract A Global coffee bean production**

In 2019 the supply of coffee beans was greater than the demand, resulting in a global coffee bean surplus of over 4 million bags. Coffee bean supply increased by 8% whereas demand increased by only 2%. Consequently, by May 2019, the global price of coffee beans fell to its lowest level in over 10 years.

5

The increase in global production was caused by developments in farming equipment and improved methods of production. Also, favourable weather conditions in major coffee-producing countries, such as Brazil, contributed to the global increase in production.

The fall in the global price of coffee beans caused serious problems for small coffee growers in Central America and Africa. These farmers made large losses and many reached their short-run shutdown point. Some farmers have switched to the production of lower-risk crops.

10

**Extract B Coffee shop chain growth**

Coffee is the second most popular drink in the world and the demand for it is increasing steadily. Globally two billion cups of coffee are consumed every day. The revenue of coffee shop chains globally is projected to reach \$237.6 billion by 2025.

Starbucks is the largest coffee shop chain worldwide. In 2019 Starbucks' revenue increased by 7.24%. Its profits also increased by 7.11% to \$17.98 billion. The company had over 27 000 stores worldwide, with many new shops opening in China.

5

In the USA it is difficult for a new firm to enter the coffee shop market because there are already a number of well-known firms. These include Starbucks, Tim Hortons, Dunkin' Donuts, Dutch Bros Coffee and Peet's Coffee. The firms compete using special offers, large advertising budgets and loyalty schemes. More recently, these firms have been using higher quality coffee beans and cold coffee drinks to attract younger coffee drinkers. They have also been investing heavily in developing mobile phone apps and online ordering systems to increase brand loyalty and market shares. Industry leaders believe that social media advertising is the most effective form of marketing for coffee shops.

10

15

However, there are still a large number of successful, small independent coffee shops in the USA. These are often very different to the larger firms, offering alternative drinks and food options. They are also located in out-of-town-centres and aim to attract a different type of consumer.

20

(4)



**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.  
Write your answers in the space provided on the following pages.**

**7** In 2018 total new car sales in China were 23.7 million.

- (a) With reference to Figure 2, calculate the 4-firm concentration ratio for the car market in China in 2018. You are advised to show your working.

(2)

- (b) With reference to the third paragraph of Extract B, explain what is meant by a 'takeover'.

(4)

- (c) With reference to Figure 1 and Extract A, analyse **two** reasons for the fall in car sales in China since 2017.

(6)

- (d) With reference to Extract A, examine the likely effects of the Chinese Government's subsidy on the profits of an electric car manufacturer.

Illustrate your answer with an appropriate diagram.

(8)

- (e) With reference to Extract A and Extract B and your own knowledge, discuss the types of non-price competition that could be used by car manufacturers to increase the sales of cars.

(14)



## Sources for use with Section B.

## The Chinese car market

Figure 1 New car sales in China, 2009–2019 (millions)

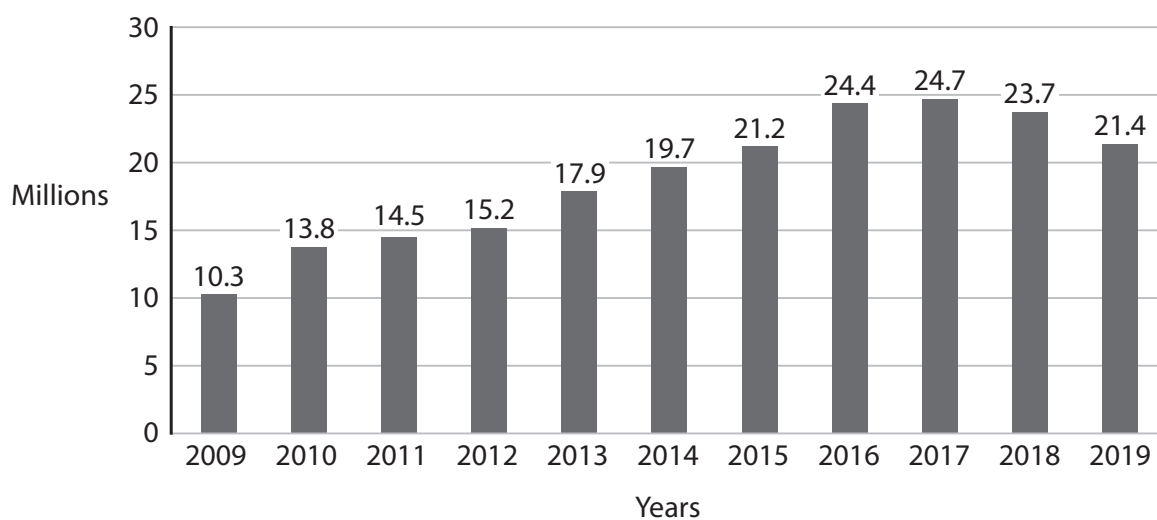
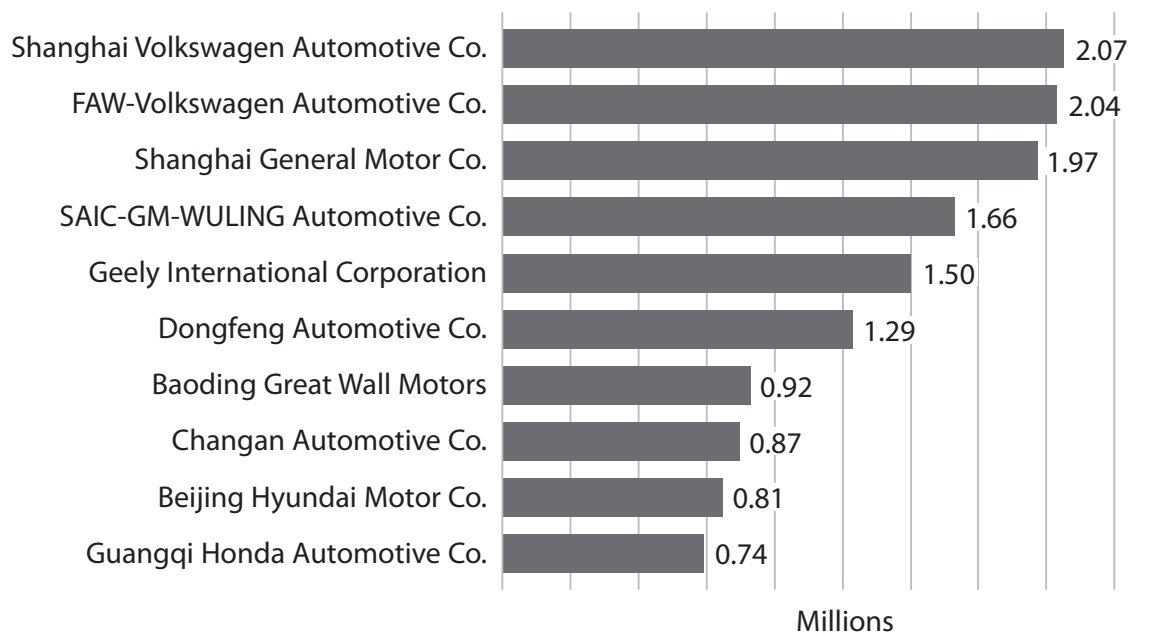


Figure 2 Major car manufacturers' sales in China, 2018 (millions)



**Extract A Developments in the Chinese car market**

In 2019 more cars were sold in China than in any other country. In that year, the Chinese car market accounted for 30% of total global car sales. Chinese manufacturers produced 42% of the cars sold in China in 2019. In 2018 23.7 million cars were sold in China, compared to only 4.4 million in Japan, 15.6 million in Europe and 17.2 million in the United States. 5

In 2018 car sales in China declined by 4%, the first reduction in 20 years. One reason for this was the slowdown in China's rate of economic growth. In 2009 real GDP rose by 9.4%, but in 2018 the rate of growth had fallen to 6.6%.

The decline in sales is also because of the increased availability of substitutes. Chinese car buyers are increasingly looking for low-cost alternatives to buying new cars. Many consumers are switching from car ownership to using car-hailing taxi apps instead. There are now over 100 different car-hailing platforms in China with over 330 million consumers. The price of these services is very low and the app makes them very easy to order. China is becoming the largest car-hailing taxi market in the world. 10  
15

Growth in the electric and hybrid car market is promising, as younger consumers demand more environmentally friendly transportation. The Chinese Government is heavily subsidising electric cars, offering up to 90 000 yuan per car, in an attempt to encourage more production. The aims of the subsidies are to reduce air pollution to meet carbon performance targets and to improve the quality of electric cars. The Government is also increasing the number of public charging points available for electric cars. Local governments incentivise consumers to purchase electric cars by offering free licence plates and free parking. 20

**Extract B Competition in the Chinese car market**

A connected-car is one that has its own internet connection. This allows the car to share internet access and data with other devices inside and outside the car. The global connected-car market is expected to grow by 270% by 2022. Market research by Kantar TNS suggested 79% of the Chinese consumers planned to buy a connected-car in the future. 5

In 2018 BMW, a leading German luxury car manufacturer, started a joint venture with Alibaba Group, a Chinese multinational firm specialising in technology. Their aim was to develop a range of luxury connected-cars. Drivers are able to shop online, watch movies, listen to music and book appointments in their new BMW. Quality and innovation are very important in the Chinese car market. Consumers are very influenced by reputation and social media when choosing a car to purchase. 10

Chinese car manufacturer Geely is the main producer of connected-cars. Geely has a 6.3% market share of the total Chinese car market. The business produces highly connected-cars with ultra-modern design. The company targets its cars at younger consumers. The company is trying to expand internationally and recently bought the majority share in Lotus, a British sports car brand. The takeover should help Geely increase its sales in Europe. However, its main objective is to grow its market share in China. 15

(8)



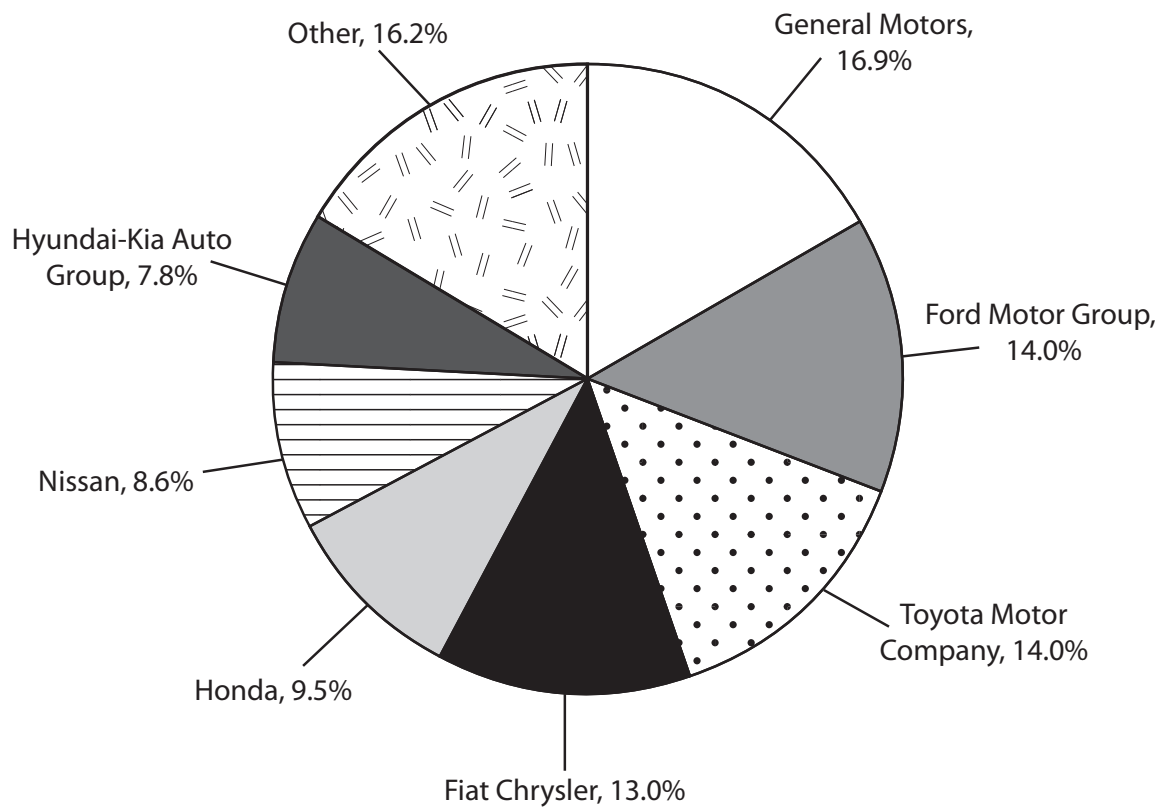


**SECTION B**

**Study Figure 1 and Extracts A and B in the Source Booklet before answering Question 7.  
Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the four-firm concentration ratio for the US car market in 2019. (2)
- (b) With reference to Extract A, explain what is meant by 'horizontal integration'. (4)
- (c) With reference to Extract A, analyse **two** barriers that Stellantis are likely to experience when trying to increase market share in China. (6)
- (d) With reference to Extract A, examine the impact of an increase in car sales in the USA on the profits of Stellantis.  
Illustrate your answer with an appropriate diagram. (8)
- (e) With reference to the information provided and your own knowledge, discuss the possible impact of the merger between PSA Group and Fiat Chrysler on workers and consumers. (14)



**Sources for use with Section B****The car industry****Figure 1****Percentage market share of car manufacturers in the USA, 2019**

**Extract A PSA Group and Fiat Chrysler merger**

In January 2021 PSA Group and Fiat Chrysler agreed to merge, creating the world's third largest car manufacturer by volume. The new firm, named Stellantis, includes well-known car brands including Peugeot, Citroen and Vauxhall from PSA Group and Alfa Romeo, Jeep and Lancia from Fiat Chrysler. The ownership of the firm is split evenly between the shareholders of PSA Group and Fiat Chrysler. As a result of this merger, Stellantis owns manufacturing plants all over the world including the Netherlands, the USA and the UK. It has an expected annual turnover of over €170 billion. 5

This horizontal integration is expected to benefit both firms. Each firm will benefit from cost savings by sharing production expertise and technical knowledge. It is estimated that there will be an annual cost saving of €3.4 billion from purchasing economies of scale. PSA Group has gained access to the American car market, where Fiat Chrysler already has a significant market share, with 3 000 car showrooms across the USA. Following the merger, in Q1 2021 Stellantis experienced a 25% increase in revenue as a result of an increase in car sales in the US market. 10 15

Fiat Chrysler will benefit from gaining access to PSA Group's research and development into electric cars. This is important for the firm because demand for electric cars is increasing globally. PSA Group has developed a range of low-emission vehicles that Fiat Chrysler does not have the technology to produce. Electric cars are also important when moving into foreign markets such as China. Since 2010, the demand for electric cars in China has been rising steadily. In 2020 38% of global sales of electric cars were in China. 20

The shareholders of Stellantis hope that the firm will be able to compete more effectively in China, the world's biggest car market. In 2020 PSA Group and Fiat Chrysler had a combined market share of only 1% in the Chinese car market, whereas Chinese car firms had a 40% market share. In addition, a number of other well-established firms are operating in the Chinese car market including Volkswagen, Honda and Toyota. Trying to increase market share in China may prove to be difficult for Stellantis. Good communication and clear management will be essential if Stellantis is to be successful. 25

**Extract B Concerns over factory closures**

Trade unions are concerned that Stellantis will close factories to cut costs. Unite, the UK-based trade union negotiating on behalf of the 3 000 Vauxhall employees, has requested a meeting with the head of Stellantis, to prevent possible factory closures. The skilled car workers are highly specialised. Therefore, if these factories were to close, it would be very difficult for the workers to find new jobs without training. 5

Illustrate your answer with an appropriate diagram.





**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Amazon's revenue between 2010 and 2020. (2)
- (b) With reference to Figure 2, explain the market structure of cloud infrastructure providers. (4)
- (c) With reference to Extract A, analyse the likely impact on consumers of **two** methods by which Amazon competes with other retailers. (6)
- (d) With reference to Extract A, examine **two** likely effects of the global health crisis on Amazon's profits. (8)
- (e) With reference to Extract B and your own knowledge, discuss reasons why many SMEs in South Africa shut down in 2020. (14)
- Illustrate your answer with an appropriate diagram.

## Sources for use with Section B

## The impact of the global health crisis

Figure 1 Amazon's annual revenue, 2010–2020 (billion US dollars)

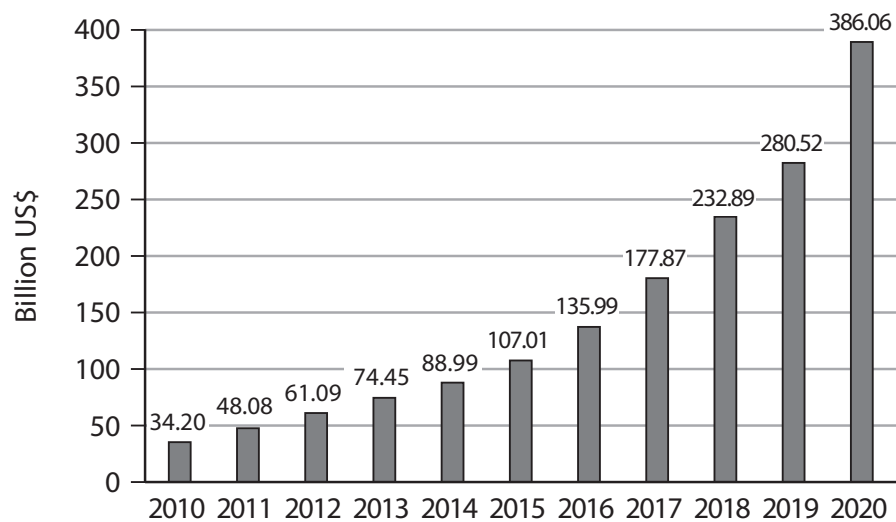
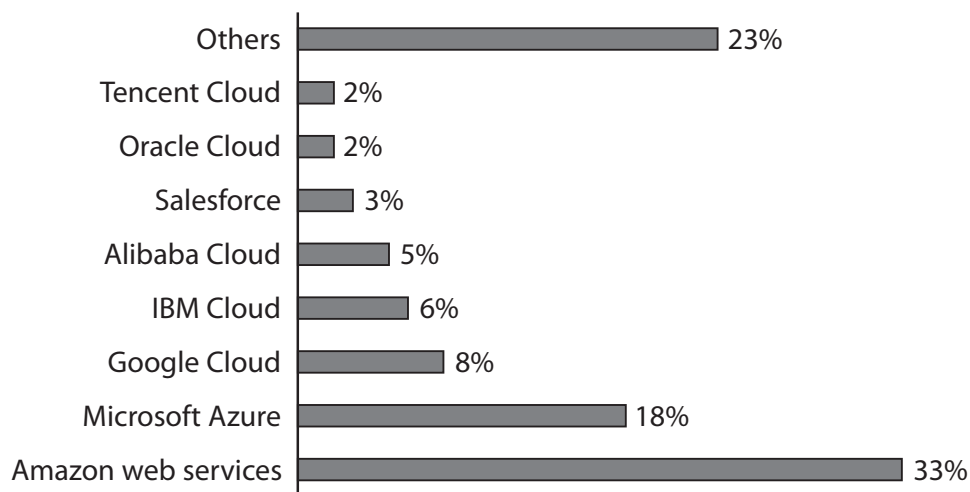


Figure 2 Worldwide market share of cloud infrastructure providers by revenue, Q4 2019



**Extract A Amazon**

Amazon, the American global distribution business, increased its revenue from \$280.5 billion in 2019 to \$386.1 billion in 2020. For the year ending 31 March 2021 its profit was \$167.6 billion. The business operates mainly online but it also has several physical stores. Amazon's success has been driven by its methods of competition including its focus on convenience, fast delivery, low prices and choice for its consumers. Over 28% of consumers complete an Amazon order in three minutes or less and 50% of consumers in under 15 minutes. Amazon produces its own products such as Amazon Prime, Alexa, Kindle, Fire and Echo, as well as selling millions of additional products. Amazon also offers the opportunity for third party suppliers to sell on its website.

5

10

During 2020, the global health crisis prevented consumers from visiting physical stores. As a result many people used Amazon to purchase products online. This led to an increase in the demand for goods supplied by Amazon. Its costs of production increased by \$4 billion, mainly as a result of employing an additional 400 000 workers in 2020. By the end of the year, it employed 1.3 million full-time and part-time workers globally. A fall in labour productivity also caused an increase in costs.

15

**Extract B Small and medium-size enterprises (SMEs) in South Africa**

As a result of the global health crisis the revenues of many South African enterprises fell significantly. In July 2020 a management consultancy company conducted a survey of 4 500 businesses in South Africa to examine the impact of the global health crisis. It reported that 21% of enterprises were closed but, of these, 64% indicated that they expected to reopen.

5

The survey also established that SMEs were 26 times more likely to close than much larger enterprises. In addition, SMEs would require R1.1 trillion of government financial support in order to remain open in 2021. In South Africa SMEs make up 98.5% of the total number of enterprises and contribute 39% to the country's GDP.

10

In the survey 70% of SMEs reported that they cut back on spending to survive. Over half of medium-sized enterprises were only able to survive by closing parts of their business or reducing capacity until the economic situation improved. However, the revenue of many SMEs did not cover their variable costs and they were forced to shut down.

The survey findings were not all negative. Those SMEs offering essential services, such as food, reported an increase in revenues. Although costs had also risen, profits had either remained constant or had increased.

15

(8)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Deliveroo's total revenue between 2017 and 2021. You are advised to show your working. (2)
- (b) With reference to Figure 2, explain the market structure of the UK food delivery market in 2021. (4)
- (c) With reference to Extract B, analyse **two** factors that influence the demand for online food delivery. (6)
- (d) With reference to Figure 1 and the first paragraph of Extract B, examine **two** reasons why Deliveroo is making a loss. (8)
- Illustrate your answer with an appropriate diagram(s).
- (e) With reference to the information provided, discuss the strategies used by food delivery businesses to increase their market shares. (14)
- Refer to game theory analysis in your answer.

## Sources for use with Section B

## The food delivery market

Figure 1 Deliveroo's annual total revenue and loss, £ million, 2017–2021

| Year | Total revenue | Loss |
|------|---------------|------|
| 2017 | 277           | 199  |
| 2018 | 476           | 232  |
| 2019 | 771           | 317  |
| 2020 | 1 163         | 223  |
| 2021 | 1 824         | 298  |

Figure 2 Market share (%) of food delivery businesses in the UK, 2017–2021, (percentage share based on revenue)

|           | 2017 | 2021 |
|-----------|------|------|
| Just Eat  | 68   | 40   |
| Deliveroo | 12   | 27   |
| Uber Eats | 6    | 27   |
| Dominos   | 5    | 3    |
| Others    | 9    | 3    |



**Extract A Deliveroo's market share in the UK**

Deliveroo is a food delivery business operating mainly in western Europe. Consumers use an app to order food from a restaurant. Once the food has been prepared, a Deliveroo courier collects the food and delivers it to the consumer.

Deliveroo has three main competitors in the UK's food delivery market: Just Eat, Uber Eats and Dominos. All businesses provide consumers with an app to access their services. 5

During the global health crisis, Deliveroo experienced significant growth in its market share. This was because it differentiated itself by introducing home deliveries of groceries together with orders for takeaway meals. By the end of the crisis, Uber Eats and Just Eat had also introduced grocery deliveries to households. 10

Furthermore, the three largest businesses in the UK have been engaged in a price war and expensive advertising campaigns. The aim of these strategies was to increase market share and to force other competitors to leave the market.

**Extract B Costs and revenues**

In 2021 Deliveroo made a loss of £298 million. Marketing costs and fixed costs increased from £358.5 million in 2020 to £628.7 million in 2021. Costs are expected to continue to rise in the short-run because of the increase in the price of fuel and high rates of inflation across Europe. In the first six months of 2022, although Deliveroo's revenue was increasing, this was at a slower rate than the increase in its costs of production. 5

The average value of an order for a takeaway meal fell in many countries because consumers reduced the number of luxury items they purchased. In the European Union in June 2022 the annual growth in wages was 4.5% but the annual inflation rate was 9.6%. 10

However, demand for online food delivery and takeaway meals is expected to increase rapidly between 2023 and 2030. There are several reasons for this expected increase in demand including:

- An increase in the number of people living in cities. For example, from 2015 to 2025, there is expected to be a 7.6% increase in the population living in cities in the UK 15
- Greater consumer preference for online ordering associated with an increase in internet connectivity and smartphone usage. For example, online ordering and food delivery is growing at an annual rate of between 15% and 20% in the UK
- Increased advertising by food delivery businesses. For example, Just Eat's marketing expenditure in the first half of 2021 totalled £252 million compared with £83 million in the first half of 2020. 20

(d) With reference to Figure 1 and the first paragraph of Extract B, examine **two** reasons why Deliveroo is making a loss.

Illustrate your answer with an appropriate diagram(s).

(8)





**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the change in Uniqlo's total costs between 2021 and 2022. Show your workings. (2)
- (b) With reference to the first paragraph of Extract A, explain what is meant by the term 'organic growth'. (4)
- (c) With reference to the second paragraph of Extract A, analyse **two** reasons why Uniqlo has been very successful in establishing itself in international markets. (6)
- (d) With reference to Extract B, examine the likely impact of a reduction in Uniqlo's costs of production on its total profits. (8)
- Illustrate your answer with an appropriate diagram.
- (e) With reference to Extract C, Figure 2 and your own knowledge, discuss the likely barriers to entry for a business wishing to enter the global fashion retail market. (14)

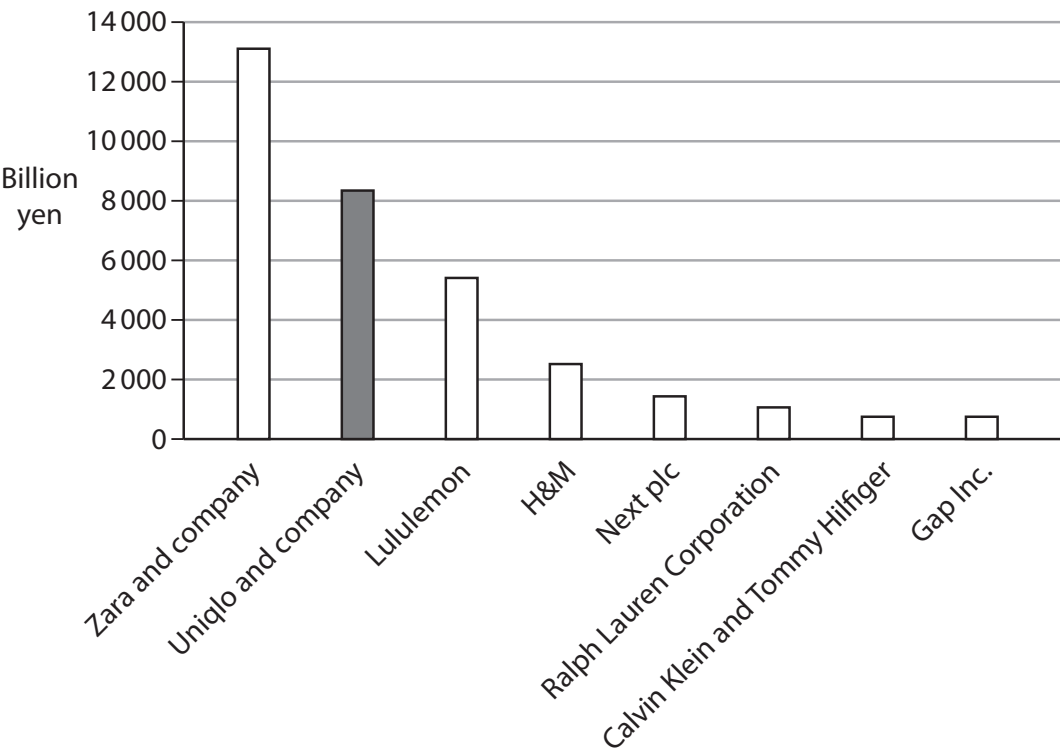
Sources for use with Section B

The global fashion retail market

Figure 1 Uniqlo’s total revenue and profit, billion yen, 2020–2022

| Year | Revenue<br>(billion yen) | Profit<br>(billion yen) |
|------|--------------------------|-------------------------|
| 2020 | 2 008                    | 975                     |
| 2021 | 2 132                    | 1 073                   |
| 2022 | 2 301                    | 1 206                   |

Figure 2 Global fashion retailers, ranked by market value, billion yen, February 2023



**Extract A Uniqlo's successful growth strategy**

Uniqlo is a Japanese fashion retailer. The company was set up in 1984 and it initially focused on the manufacturing and selling of casual, affordable clothing in Japan. In the 2000s Uniqlo started to sell in other countries such as the USA, China, UK, Australia and South Korea. Uniqlo expanded through a process of organic growth. The company opened stores in large cities within each country. 5

Uniqlo has been very successful in establishing itself in international markets. The business competes with other brands such as Zara and H&M by offering lower prices. Uniqlo has also used non-price competition to offer innovative products that meet its consumers' needs, such as ultra-lightweight and heat-generating fabrics (HeatTech). It also works with well-known designers and celebrities, such as Alexander Wang. The business has invested heavily in advertising and it was the first business in this market to use fast-moving digital images in its stores. 10

**Extract B Uniqlo's revenues and costs**

Between 2021 and 2022 Uniqlo's revenue increased by 7.9%. Demand for its products has steadily increased. One reason is that global financial pressures have caused consumers to demand quality items at lower prices.

In 2023 two factors may contribute to a reduction in Uniqlo's costs of production. It aims to negotiate lower prices from its suppliers, including for materials such as cotton and dyes. It is also replacing workers by investing in technology and automation. 5

However, in March 2023 Uniqlo had to increase wages for some employees by 40% in order to attract highly skilled labour. In addition, there was a global increase in the costs of raw materials. 10

**Extract C The global fashion retail market**

Uniqlo, H&M and Zara compete in the 'fast fashion' retail market. Fast fashion is where the businesses respond to the latest trends by supplying new affordable fashion items to the market very quickly. The retailers all offer low prices because they have significant bargaining power over their suppliers. They also provide desirable items because of their high-quality market research and their innovative designs. The businesses compete both online and in stores globally. The profits they make enable them to engage in extensive advertising campaigns. 5

In 2021 China was Uniqlo's largest international market with 917 stores. Uniqlo had a 1.4% share of the Chinese clothing market, larger than any other business. The rest of the market is made up of many small firms. 10

Illustrate your answer with an appropriate diagram.



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

**SECTION B**

**Study Figures 1 and 2 and Extracts A, B and C in the Source Booklet before answering Question 7. Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 2, calculate the change in AstraZeneca's total costs between 2021 and 2022.
- You are advised to show your workings.
- (2)
- (b) With reference to Extract B line 14, explain the term 'dynamic efficiency'.
- (4)
- (c) With reference to Extract A, analyse **two** ways that pharmaceutical companies may benefit from external economies of scale.
- (6)
- (d) With reference to the last paragraph of Extract B, examine the impact of the increase in fixed costs on AstraZeneca's profit.
- Illustrate your answer with an appropriate diagram(s).
- (8)
- (e) With reference to the information provided and your own knowledge, discuss the likely barriers that might prevent a new company from entering the pharmaceutical industry.
- (14)

## Sources for use with Section B

## The pharmaceutical industry

**Figure 1 Largest pharmaceutical companies in Ireland, based on global revenue, \$ billion, 2022**

| Rank | Company           | Global revenue (\$bn) |
|------|-------------------|-----------------------|
| 1    | Pfizer            | 100.30                |
| 2    | Roche             | 69.77                 |
| 3    | Merck & Co        | 59.28                 |
| 4    | AbbVie            | 58.05                 |
| 5    | Bayer             | 53.88                 |
| 6    | Johnson & Johnson | 52.60                 |

**Figure 2 AstraZeneca's total global revenue and profit, \$ million, 2021 and 2022**

|               | 2021 (\$m) | 2022 (\$m) |
|---------------|------------|------------|
| Total revenue | 36 541     | 42 998     |
| Profit        | 1 056      | 3 757      |



**Extract A The pharmaceutical industry in Ireland**

Many large pharmaceutical companies have chosen to establish themselves in Ireland. The most important reason is the country's low rate of corporation tax which is set at 12.5% compared to 21% in the USA and 25% in the UK. Another reason for locating in Ireland is the speed at which new products are approved by Ireland's pharmaceutical regulatory authority.

5

Over 85 pharmaceutical companies operate in Ireland, enabling businesses located there to benefit from external economies of scale. These companies employ approximately 30 000 highly skilled workers. The Government of Ireland has invested heavily in improving roads and railways. In 2021 it announced plans for a further €35 billion investment into the country's transport system. There are many research partnerships between businesses and universities that share research and development (R&D) costs. These universities also help to ensure that students leave with the skills required to work in the pharmaceutical industry.

10

**Extract B AstraZeneca**

AstraZeneca is a UK-Swedish owned multinational pharmaceutical company that operates in over 100 countries around the world. In 2022 it was the tenth largest global pharmaceutical company, producing high quality medical equipment and pharmaceuticals for hospitals.

5

AstraZeneca has a good reputation for R&D. In 2022 it invested \$9.8 billion in R&D. This enabled it to:

- develop three new medicines
- continue research on medical advancements
- improve productive efficiency.

10

In 2023 AstraZeneca announced plans to invest \$400 million in building a new factory in Dublin, Ireland. This was a change from its previous plan to open a new factory in the UK. The company stated that it needed to reduce costs to be price competitive. At the same time this investment was necessary for the company to achieve dynamic efficiency.

One of the biggest problems facing AstraZeneca is the cost and time involved in producing new medicines. Also, the regulatory environment is complex because all pharmaceuticals must undergo clinical trials before medicines can be approved. The fixed costs associated with complying with these regulations have increased significantly. A low pricing strategy is critical to attract consumers because brand loyalty is low.

15

**Extract C The global pharmaceutical industry**

Although there are many companies in the pharmaceutical industry, they all own patents for their products. In the European Union these can last for up to 20 years. A business in this industry might spend up to 25% of its revenue on R&D. In 2022 Johnson & Johnson spent \$14.6 billion, Roche spent \$14.8 billion and AstraZeneca spent \$9.8 billion. This investment is risky because there is no guarantee of medical breakthroughs. Consequently, there are many mergers and frequent collaborations between pharmaceutical companies. For example, in 2022 there were 1 733 mergers and acquisitions in the industry.

5



(d) With reference to the last paragraph of Extract B, examine the impact of the increase in fixed costs on AstraZeneca's profit.

Illustrate your answer with an appropriate diagram(s).

(8)



[illegible]

**SECTION B**

**Study Figure 1 and Extracts A, B and C in the Source Booklet before answering Question 7.**

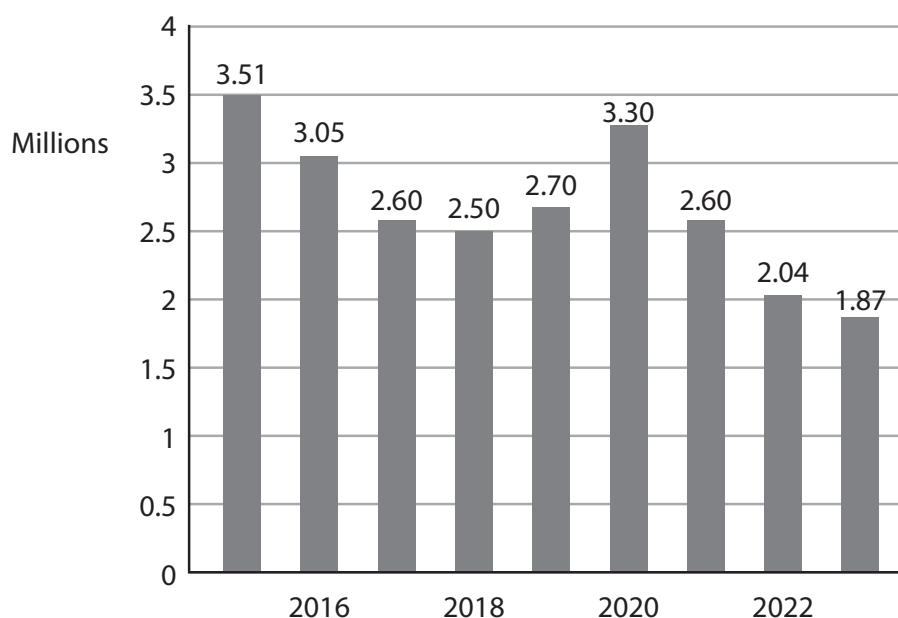
**Write your answers in the spaces provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in bicycle sales between 2022 and 2023.
- You are advised to show your workings. (2)
- (b) With reference to the first two paragraphs of Extract B, explain what is meant by 'a reduction in contestability'. (4)
- (c) With reference to Extract B and your own knowledge, analyse **two** reasons why some bicycle retailers remain small. (6)
- (d) With reference to Figure 1, Extract A and Extract B, examine **two** reasons why some bicycle retailers were forced to close. (8)
- (e) With reference to Extract C, discuss methods that Halfords could use to increase its profitability.
- Illustrate your answer with a costs and revenues diagram. (14)

## Sources for use with Section B

## The UK bicycle industry

Figure 1 Number of bicycles sold in the UK, millions, 2015–2023



## Extract A The UK bicycle market

The UK bicycle market is facing a challenging period with declining sales. In 2023, sales were at their lowest in over 10 years. Since 2020, this decline was mainly caused by:

- a decrease in consumer demand after the boom in bicycle sales during the global health crisis
- high inflation rates.

5

However, in 2023, sales of some types of bicycles increased. For example, electric bikes (e-bikes) are becoming a more popular choice. Mintel, a market research business, forecast a 12% increase in bicycle sales in 2024. This increase in demand is expected to be caused by a combination of factors, including a recovery in consumer spending and significant price reductions by retailers.

10

**Extract B Competition in the UK bicycle market**

There were 2 234 bicycle retailers in the UK in 2023. This was a decrease of 2.1% compared with 2022. The majority of these retailers are independently owned. However, a few large businesses dominate the market, including Evans Cycles, Chain Reaction Cycles, Wiggle and Halfords.

5

A rise in online shopping has been a challenge for many small-scale bicycle retailers. Online sales initially provided an opportunity for small-scale businesses to increase their market shares. However, the larger businesses quickly dominated the online market by investing heavily in advertising and branding, and by offering online discounts. These strategies have resulted in a reduction in contestability.

10

In 2023, an increasing number of bicycle retailers shut down. As the global health crisis eased, people started returning to their old routines and the demand for bicycles decreased. This left retailers with many unsold bicycles. To sell the excess supply, the large businesses reduced their prices. As a result, many small-scale retailers could not compete with these lower prices.

15

However, there are still opportunities for small-scale bicycle retailers to succeed. These businesses offer unique expertise and specialist services such as bike fitting and selling a niche range of bicycles. Some of these businesses have also been successful in adapting quickly to the growing demand for e-bikes.

**Extract C Halfords**

Halfords is the largest bicycle retailer in the UK, with a market share of approximately 20%. It has been successfully selling new and innovative products, such as electric scooters (e-scooters). Halfords is also a market leader for e-bikes.

In the first quarter of 2024, Halfords' profit before tax fell by 18% compared with the previous year. Revenue fell because poor weather caused a decrease in sales of bicycle products. Total costs had also increased by 12.7%. This was mainly caused by:

5

- a 10% increase in the national minimum wage
- significant increases in transport costs.

Halfords aims to overcome these challenges and continue to grow its business by:

10

- focusing on its services business e.g. bike servicing, which is less affected by economic downturns
- investing in its online presence to reach more consumers
- increasing its price competitiveness
- expanding its sales of e-bikes and e-scooters.

15



(8)





**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in the average world price of coffee beans from 1 July 2017 to 1 May 2019. You are advised to show your working. (2)
- (b) With reference to Extract A (line 12), explain what is meant by 'short-run shutdown point.' (4)
- (c) With reference to Figure 2 and Extract A, analyse **two** possible reasons for the increase in supply of coffee beans between 2015 and 2019. (6)
- (d) With reference to Extract B, examine **two** barriers to entry into the US coffee shop market. (8)
- (e) With reference to the information provided, discuss the reasons for the increase in Starbucks' profits in 2019.  
For **one** of these reasons, illustrate your answer with an appropriate cost and revenue diagram. (14)

## Sources for use with Section B.

## The global coffee market

Figure 1 Average world price of coffee beans, \$ per kg, July 2017–May 2019

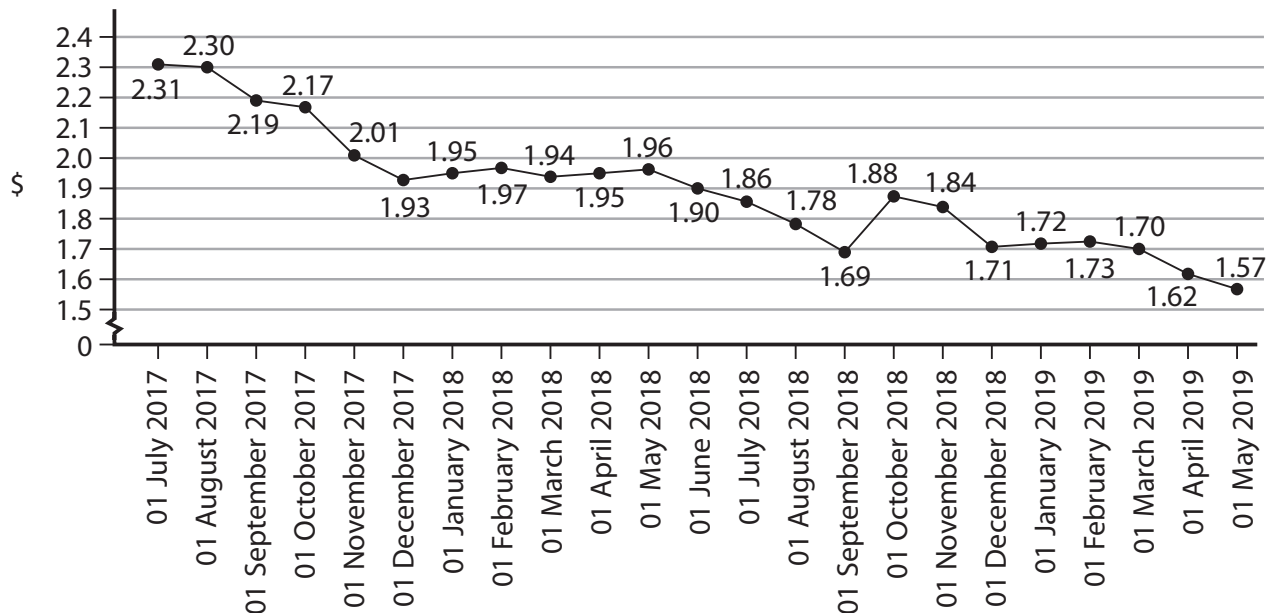
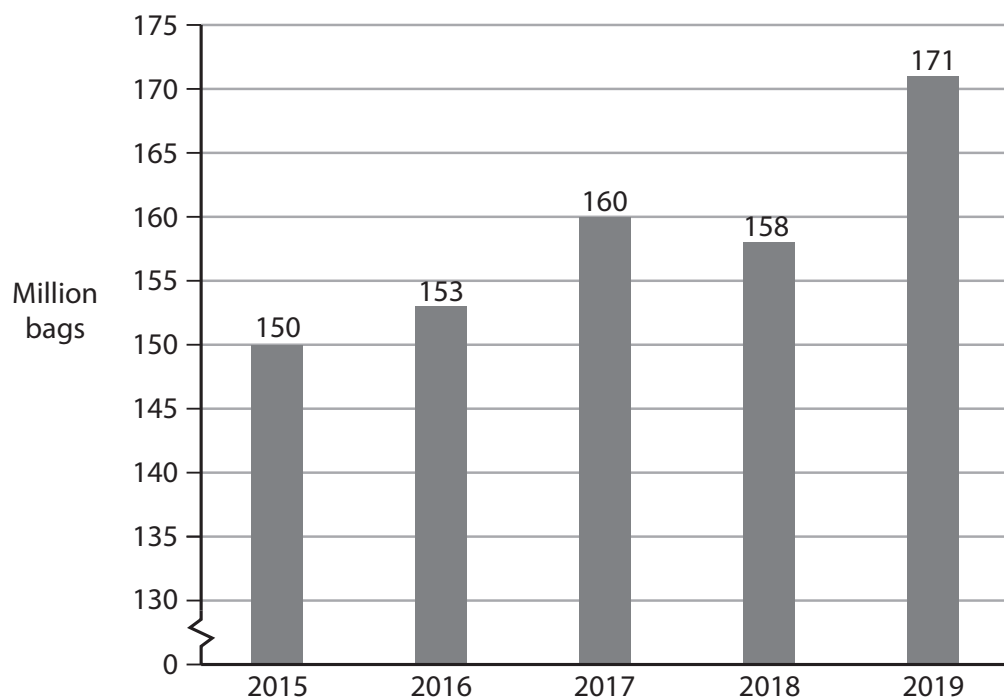


Figure 2 World coffee production, million bags, 2015–2019



**Extract A Global coffee bean production**

In 2019 the supply of coffee beans was greater than the demand, resulting in a global coffee bean surplus of over 4 million bags. Coffee bean supply increased by 8% whereas demand increased by only 2%. Consequently, by May 2019, the global price of coffee beans fell to its lowest level in over 10 years.

5

The increase in global production was caused by developments in farming equipment and improved methods of production. Also, favourable weather conditions in major coffee-producing countries, such as Brazil, contributed to the global increase in production.

The fall in the global price of coffee beans caused serious problems for small coffee growers in Central America and Africa. These farmers made large losses and many reached their short-run shutdown point. Some farmers have switched to the production of lower-risk crops.

10

**Extract B Coffee shop chain growth**

Coffee is the second most popular drink in the world and the demand for it is increasing steadily. Globally two billion cups of coffee are consumed every day. The revenue of coffee shop chains globally is projected to reach \$237.6 billion by 2025.

Starbucks is the largest coffee shop chain worldwide. In 2019 Starbucks' revenue increased by 7.24%. Its profits also increased by 7.11% to \$17.98 billion. The company had over 27 000 stores worldwide, with many new shops opening in China.

5

In the USA it is difficult for a new firm to enter the coffee shop market because there are already a number of well-known firms. These include Starbucks, Tim Hortons, Dunkin' Donuts, Dutch Bros Coffee and Peet's Coffee. The firms compete using special offers, large advertising budgets and loyalty schemes. More recently, these firms have been using higher quality coffee beans and cold coffee drinks to attract younger coffee drinkers. They have also been investing heavily in developing mobile phone apps and online ordering systems to increase brand loyalty and market shares. Industry leaders believe that social media advertising is the most effective form of marketing for coffee shops.

10

15

However, there are still a large number of successful, small independent coffee shops in the USA. These are often very different to the larger firms, offering alternative drinks and food options. They are also located in out-of-town-centres and aim to attract a different type of consumer.

20

(e) With reference to the information provided, discuss the reasons for the increase in Starbucks' profits in 2019.

For **one** of these reasons, illustrate your answer with an appropriate cost and revenue diagram.

(14)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has rounded corners and a thin black border around the edges.

**(Total for Question 7 = 34 marks)**

---

**TOTAL FOR SECTION B = 34 MARKS**

**SECTION B**

**Study Figures 1 and 2 and Extracts A and B in the Source Booklet before answering Question 7.**

**Write your answers in the space provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in Amazon's revenue between 2010 and 2020. (2)
- (b) With reference to Figure 2, explain the market structure of cloud infrastructure providers. (4)
- (c) With reference to Extract A, analyse the likely impact on consumers of **two** methods by which Amazon competes with other retailers. (6)
- (d) With reference to Extract A, examine **two** likely effects of the global health crisis on Amazon's profits. (8)
- (e) With reference to Extract B and your own knowledge, discuss reasons why many SMEs in South Africa shut down in 2020. (14)
- Illustrate your answer with an appropriate diagram.

## Sources for use with Section B

## The impact of the global health crisis

Figure 1 Amazon's annual revenue, 2010–2020 (billion US dollars)

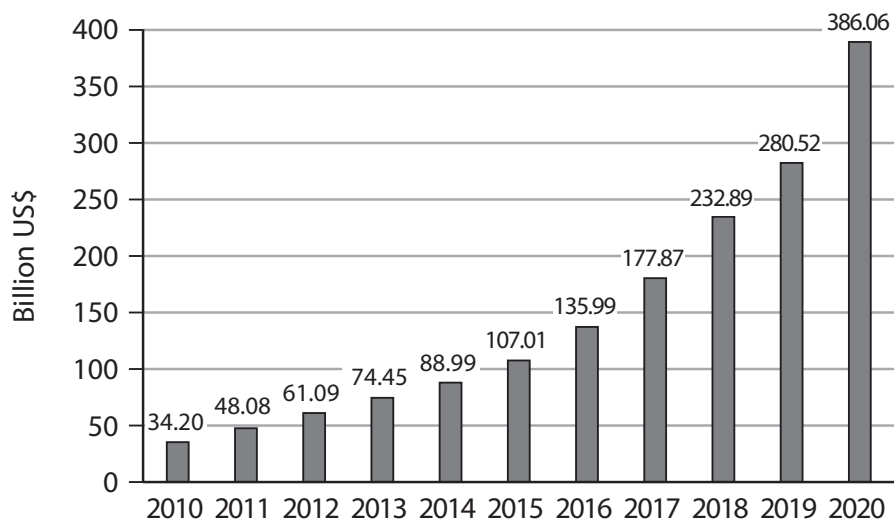
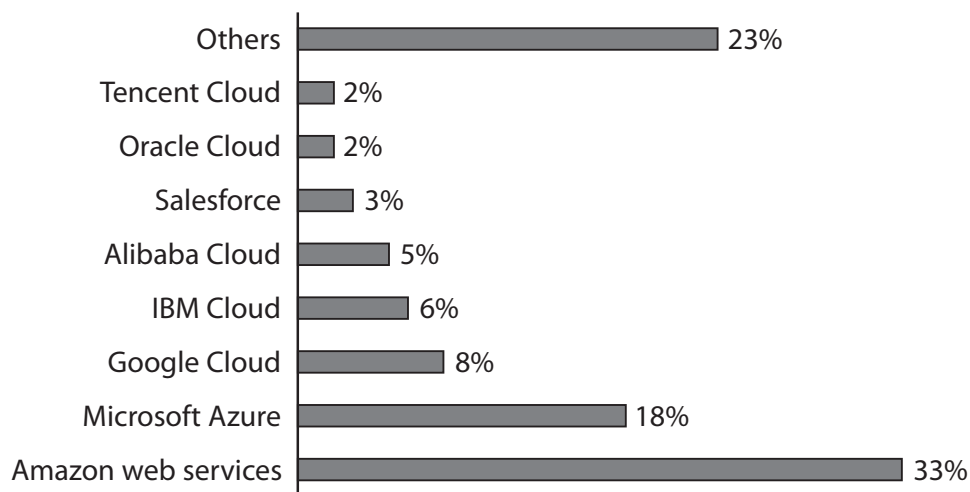


Figure 2 Worldwide market share of cloud infrastructure providers by revenue, Q4 2019



**Extract A Amazon**

Amazon, the American global distribution business, increased its revenue from \$280.5 billion in 2019 to \$386.1 billion in 2020. For the year ending 31 March 2021 its profit was \$167.6 billion. The business operates mainly online but it also has several physical stores. Amazon's success has been driven by its methods of competition including its focus on convenience, fast delivery, low prices and choice for its consumers. Over 28% of consumers complete an Amazon order in three minutes or less and 50% of consumers in under 15 minutes. Amazon produces its own products such as Amazon Prime, Alexa, Kindle, Fire and Echo, as well as selling millions of additional products. Amazon also offers the opportunity for third party suppliers to sell on its website.

5

10

During 2020, the global health crisis prevented consumers from visiting physical stores. As a result many people used Amazon to purchase products online. This led to an increase in the demand for goods supplied by Amazon. Its costs of production increased by \$4 billion, mainly as a result of employing an additional 400 000 workers in 2020. By the end of the year, it employed 1.3 million full-time and part-time workers globally. A fall in labour productivity also caused an increase in costs.

15

**Extract B Small and medium-size enterprises (SMEs) in South Africa**

As a result of the global health crisis the revenues of many South African enterprises fell significantly. In July 2020 a management consultancy company conducted a survey of 4 500 businesses in South Africa to examine the impact of the global health crisis. It reported that 21% of enterprises were closed but, of these, 64% indicated that they expected to reopen.

5

The survey also established that SMEs were 26 times more likely to close than much larger enterprises. In addition, SMEs would require R1.1 trillion of government financial support in order to remain open in 2021. In South Africa SMEs make up 98.5% of the total number of enterprises and contribute 39% to the country's GDP.

10

In the survey 70% of SMEs reported that they cut back on spending to survive. Over half of medium-sized enterprises were only able to survive by closing parts of their business or reducing capacity until the economic situation improved. However, the revenue of many SMEs did not cover their variable costs and they were forced to shut down.

The survey findings were not all negative. Those SMEs offering essential services, such as food, reported an increase in revenues. Although costs had also risen, profits had either remained constant or had increased.

15

(e) With reference to Extract B and your own knowledge, discuss reasons why many SMEs in South Africa shut down in 2020.

Illustrate your answer with an appropriate diagram.

(14)





**(Total for Question 7 = 34 marks)**

---

**TOTAL FOR SECTION B = 34 MARKS**

**SECTION B**

**Study Figure 1 and Extracts A, B and C in the Source Booklet before answering Question 7.**

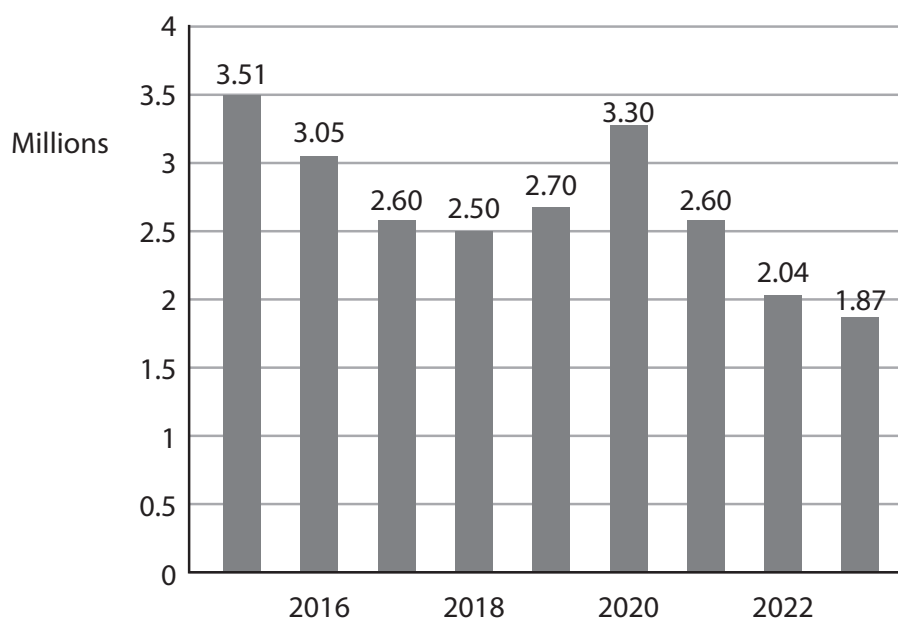
**Write your answers in the spaces provided on the following pages.**

- 7** (a) With reference to Figure 1, calculate the percentage change in bicycle sales between 2022 and 2023.
- You are advised to show your workings. (2)
- (b) With reference to the first two paragraphs of Extract B, explain what is meant by 'a reduction in contestability'. (4)
- (c) With reference to Extract B and your own knowledge, analyse **two** reasons why some bicycle retailers remain small. (6)
- (d) With reference to Figure 1, Extract A and Extract B, examine **two** reasons why some bicycle retailers were forced to close. (8)
- (e) With reference to Extract C, discuss methods that Halfords could use to increase its profitability.
- Illustrate your answer with a costs and revenues diagram. (14)

## Sources for use with Section B

## The UK bicycle industry

Figure 1 Number of bicycles sold in the UK, millions, 2015–2023



## Extract A The UK bicycle market

The UK bicycle market is facing a challenging period with declining sales. In 2023, sales were at their lowest in over 10 years. Since 2020, this decline was mainly caused by:

- a decrease in consumer demand after the boom in bicycle sales during the global health crisis
- high inflation rates.

5

However, in 2023, sales of some types of bicycles increased. For example, electric bikes (e-bikes) are becoming a more popular choice. Mintel, a market research business, forecast a 12% increase in bicycle sales in 2024. This increase in demand is expected to be caused by a combination of factors, including a recovery in consumer spending and significant price reductions by retailers.

10

**Extract B Competition in the UK bicycle market**

There were 2 234 bicycle retailers in the UK in 2023. This was a decrease of 2.1% compared with 2022. The majority of these retailers are independently owned. However, a few large businesses dominate the market, including Evans Cycles, Chain Reaction Cycles, Wiggle and Halfords.

5

A rise in online shopping has been a challenge for many small-scale bicycle retailers. Online sales initially provided an opportunity for small-scale businesses to increase their market shares. However, the larger businesses quickly dominated the online market by investing heavily in advertising and branding, and by offering online discounts. These strategies have resulted in a reduction in contestability.

10

In 2023, an increasing number of bicycle retailers shut down. As the global health crisis eased, people started returning to their old routines and the demand for bicycles decreased. This left retailers with many unsold bicycles. To sell the excess supply, the large businesses reduced their prices. As a result, many small-scale retailers could not compete with these lower prices.

15

However, there are still opportunities for small-scale bicycle retailers to succeed. These businesses offer unique expertise and specialist services such as bike fitting and selling a niche range of bicycles. Some of these businesses have also been successful in adapting quickly to the growing demand for e-bikes.

**Extract C Halfords**

Halfords is the largest bicycle retailer in the UK, with a market share of approximately 20%. It has been successfully selling new and innovative products, such as electric scooters (e-scooters). Halfords is also a market leader for e-bikes.

In the first quarter of 2024, Halfords' profit before tax fell by 18% compared with the previous year. Revenue fell because poor weather caused a decrease in sales of bicycle products. Total costs had also increased by 12.7%. This was mainly caused by:

5

- a 10% increase in the national minimum wage
- significant increases in transport costs.

Halfords aims to overcome these challenges and continue to grow its business by:

10

- focusing on its services business e.g. bike servicing, which is less affected by economic downturns
- investing in its online presence to reach more consumers
- increasing its price competitiveness
- expanding its sales of e-bikes and e-scooters.

15

(e) With reference to Extract C, discuss methods that Halfords could use to increase its profitability.

Illustrate your answer with a costs and revenues diagram.

(14)





**TOTAL FOR SECTION B = 34 MARKS**

**SECTION C****Answer TWO questions from this section.**

- 8** In South Africa, in 2019, insurance, mobile phones and retail banking were markets that had high concentration ratios. For example, the 4-firm concentration ratio was 96% for mobile phones and 74% for insurance.

Evaluate the disadvantages of an oligopolistic market for producers and consumers. Refer to an industry of your choice in your answer.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 8 = 20 marks)**

- 9** In 2020 the low-cost airline Flybe shut down. A decrease in demand for European flights led to Flybe's revenue falling below its costs of production.

Evaluate whether a firm should always shut down if its costs of production are greater than its revenue. Refer to an industry of your choice in your answer.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 9 = 20 marks)**

- 10** In 2018 the South African Government passed the National Minimum Wage Act.

Evaluate the likely microeconomic effects of the introduction of a national minimum wage on businesses and workers in the tourism industry.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 10 = 20 marks)**



**SECTION C****Answer TWO questions from this section.**

- 8** In 2018 the US-owned business Toys “R” Us shut down after not being able to cover its costs.

Evaluate the view that a business will always shut down if it is not able to make a normal profit.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 8 = 20 marks)**

- 9** The tyre market in India is dominated by three large businesses, MRF, Apollo Tyres and JK Tyres, with a combined market share of 70.4%. The price of tyres has remained relatively stable over time.

With reference to an industry of your choice, evaluate the likely disadvantages for a business operating in an oligopolistic market structure.

Illustrate your answer with a payoff matrix diagram.

**(Total for Question 9 = 20 marks)**

- 10** Jeff Bezos owns 12.7% of Amazon shares and works as the Executive Chair of the board of directors. By contrast, Daniel Kretinsky owns 22% of the shares in the UK’s Royal Mail Service but he does not work for the company.

Evaluate the likely impact of the divorce of ownership from control on business objectives.

Illustrate your answer with an appropriate diagram(s).

**(Total for Question 10 = 20 marks)**



# MARK SCHEMES

official mark schemes, in the same order as the questions



|   |                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |
|---|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 5 | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p><b>The only correct answer is A</b></p> <p><b>B</b> is not correct because the profit motive and an increase in competition resulting from privatisation would increase productive efficiency</p> <p><b>C</b> is not correct because an increase in competition resulting from privatisation would lead to greater consumer choice</p> <p><b>D</b> is not correct because privatisation involves the sale of shares to individuals and institutions</p> | (1) |
| 6 | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p><b>The only correct answer is B</b></p> <p><b>A</b> is not correct because if TR is rising at a constant rate then MR will be constant</p> <p><b>C</b> is not correct because if TR is rising at a constant rate then MR will be constant and positive</p> <p><b>D</b> is not correct because if TR is rising at a constant rate then MR will be constant and positive</p>                                                                              | (1) |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                      | Answer                                                                                                                                                                                                                                                       | Mark |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | <p><b>QS4: Construct and interpret a range of standard graphical forms</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p>    | <p><b>The only correct answer is C</b></p> <p>A is incorrect because average revenue would never be below marginal revenue</p> <p>B is incorrect because this is not the shutdown point</p> <p>D is incorrect because the firm would continue to operate</p> | (1)  |
| 2        | <p><b>QS4: Construct and interpret a range of standard graphical forms</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p>    | <p><b>The only correct answer is D</b></p> <p>A is incorrect because MR is not equal to 0</p> <p>B is incorrect because this is not the lowest point on the ATC curve</p> <p>C is incorrect because the firm is making supernormal profit</p>                | (1)  |
| 3        | <p><b>QS6: Calculate cost, revenue and profit (marginal, average, totals)</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> | <p><b>The only correct answer is C</b></p> <p>A is incorrect as this is the average revenue for Q4 2020</p> <p>B is incorrect as this is the average revenue for Q4 2017</p> <p>D is incorrect as this is the average revenue for Q4 2018</p>                | (1)  |

## Section A

| Question | Quantitative skills assessed                                                                                                                                             | Answer                                                                                                                                                                                                                                                                                                 | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                        | The only correct answer is C<br><br>A is incorrect because the firms are in the same industry<br>B is incorrect because the firms are at the same stage of production<br>D is incorrect because the firms are at the same stage of production                                                          | (1)  |
| 2        | QS6: Calculate cost, revenue and profit (marginal, average, totals)<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | The only correct answer is B<br><br>A is incorrect because this is the MR at \$12<br>C is incorrect because this is the average revenue at \$12<br>D is incorrect because this is the average revenue at \$14                                                                                          | (1)  |
| 3        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | The only correct answer is A<br><br>B is incorrect as the business will make normal profit<br>C is incorrect because the business will reduce output<br>D is incorrect because the price will fall                                                                                                     | (1)  |
| 4        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | The only correct answer is D<br><br>A is incorrect because average revenue would be greater than marginal cost<br>B is incorrect because marginal revenue would be lower than average revenue<br>C is incorrect because marginal revenue would be less than total cost                                 | (1)  |
| 5        | QS8: Make calculations of elasticity and interpret the result.<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.      | The only correct answer is A<br><br>B is incorrect because this would result in an elastic demand for construction workers<br>C is incorrect because this would result in an elastic demand for construction workers<br>D is incorrect because this would influence the supply of construction workers | (1)  |
| 6        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | The only correct answer is B<br><br>A is incorrect because price would be below average cost<br>C is incorrect because price leadership occurs when businesses follow the price of                                                                                                                     | (1)  |



|          |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                    |            |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>6</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <b>The only correct answer is D</b><br><br><b>A</b> is incorrect as the demand curve is downward sloping so Apple's average revenue curve will not be perfectly elastic<br><b>B</b> is incorrect as Apple's total revenue will fall once the average revenue curve becomes price inelastic<br><b>C</b> is incorrect because this illustrates an AR curve for Apple | <b>(1)</b> |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

## Section B

| Question | <p>With reference to Figure 2, calculate the change in AstraZeneca's total costs between 2021 and 2022. You are advised to show your workings.</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mark |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(a)     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p>1 mark for calculation of total costs in 2021 <b>or</b> 2022:</p> <p><math>\\$36\,541\text{m} - \\$1\,056\text{m} = \\$35\,485\text{m} /</math></p> <p><math>\\$42\,998\text{m} - \\$3\,757\text{m} = \\$39\,241\text{m} \text{ (1)}</math></p> <p>1 mark for calculation of the actual change <b>or</b> percentage change of total costs</p> <p><math>\\$39\,241\text{m} - \\$35\,485\text{m} = \\$3\,756\text{m} /</math><br/> <math>\\$3\,756\text{m} \div \\$35\,485\text{m} \times 100 = 10.58\% \text{ (1)}</math></p> <p><b>NB: Award full marks for correct answer (\$3 756m / 10.58%) regardless of working</b><br/> <b>Accept reasonable rounding of percentage change (10.58%, 10.6%, 11%)</b><br/> <b>N.B. Award 1 mark for \$3 756 or 3 756 where m is omitted or 10.58 where % sign is omitted</b></p> | (2)  |

|          |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                           |            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>5</b> | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                   | <p><b>The only correct answer is C</b></p> <p><b>A</b> is incorrect because MC pricing is not where price is set below average variable cost</p> <p><b>B</b> is incorrect because limit pricing is not where price is set below average variable cost</p> <p><b>D</b> is incorrect because price discrimination is not where price is set below average variable cost</p> | <b>(1)</b> |
| <b>6</b> | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p><b>The only correct answer is B</b></p> <p><b>A</b> is incorrect because this is the average revenue curve</p> <p><b>C</b> is incorrect because this is the total fixed cost curve or an AR curve for a perfectly competitive firm</p> <p><b>D</b> is incorrect because this is a total revenue curve for a firm operating in an imperfectly competitive market</p>    | <b>(1)</b> |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                                                                      | Answer                                                                                                                                                                                                                                                                        | Mark       |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1        | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                                                                                                           | <b>The only correct answer is D</b><br><br>A is incorrect because this is an external economy of scale<br>B is incorrect because this is an external economy of scale<br>C is incorrect because this is not an economy of scale                                               | <b>(1)</b> |
| 2        | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                                | <b>The only correct answer is C</b><br><br>A is incorrect because this is when $MR=0$<br>B is incorrect because this is when $MC=MR$<br>D is incorrect because the firm will make some supernormal profit to pay as dividends                                                 | <b>(1)</b> |
| 3        | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                                                                                                           | <b>The only correct answer is B</b><br><br>A is incorrect because PES of labour would not change<br>C is incorrect because this would not decrease the skills of construction workers<br>D is incorrect because the wage rates of construction workers are likely to increase | <b>(1)</b> |
| 4        | <b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                            | <b>The only correct answer is B</b><br><br>A is incorrect because this is the average fixed costs for 12 000 items<br>C is incorrect because this is the average variable costs for 6 000 items<br>D is incorrect because this is the average total cost for 12 000 items     | <b>(1)</b> |
| 5        | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                               | <b>The only correct answer is A</b><br><br>B is incorrect because demand is more price elastic in the afternoon<br>C is incorrect because supply is perfectly inelastic<br>D is incorrect because supply is perfectly inelastic                                               | <b>(1)</b> |
| 6        | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <b>The only correct answer is A</b><br>B is incorrect because marginal revenue is negative after an output of 0X<br>C is incorrect because marginal revenue is equal to zero at an output of 0X<br>D is incorrect because total revenue is maximised at an output of 0X       | <b>(1)</b> |

| Question Number | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mark       |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>7 (a)</b>    | <p>Quantitative skills assessed:</p> <p><b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes.</p> <p><b>Application</b><br/>Up to 2 marks for calculation:</p> <ul style="list-style-type: none"> <li>Rs5.3bn - Rs 3.7bn = Rs1.6bn <b>(1)</b></li> <li>Rs1.6bn/Rs3.7bn x 100 = 43.24% or 43.2% or 43% <b>(1)</b></li> </ul> <p><b>Accept 43%, 43.2%, 43.24%, 43.243%, 43.2432% and other responses up to 43.2432432432%</b></p> <p><b>NB: If correct answer (eg 43.24%) is given award full marks regardless of working.</b></p> | <b>(2)</b> |

| Question Number | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mark       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>7 (b)</b>    | <p><b>Knowledge 2 Application 2</b></p> <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>2 marks for defining 'privatisation' - the sale of state-owned organisations (public sector) to the private sector <b>(1)</b></li> <li>Privatisation often involves removing barriers to enable private sector firms to enter a market <b>(1)</b></li> <li>Privatisation may make a market more competitive <b>(1)</b></li> <li>Privatisation may involve removing the monopoly power of a state-owned firm <b>(1)</b></li> </ul> <p><b>Application - up to 2 marks</b> for application to context of India's coal mining industry</p> <ul style="list-style-type: none"> <li>The Indian Government decided to privatise part of India's coal mining industry <b>(1)</b></li> <li>In 2017 state-owned Coal India Ltd. was the sole producer but domestic private sector mining firms are now able to enter the industry <b>(1)</b></li> <li>Contracts to private sector mining firms would be awarded by auction <b>(1)</b></li> </ul> <p>Any other valid application point - <b>1 mark for each</b></p> | <b>(4)</b> |

**Section B**

| Question | (a) With reference to Figure 1, calculate the percentage change in Amazon's revenue between 2010 and 2020.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(a)     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes.<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> <p>Up to 2 marks for calculation:</p> <ul style="list-style-type: none"> <li>• <math>(386.06 - 34.20) / 34.20</math> <b>(1)</b> or <math>351.86 / 34.20</math> <b>(1)</b><br/> <math>10.2883 \times 100 = 1028.83\%</math> <b>(1)</b></li> </ul> <p><b>Accept within the range 1028 to 1029</b><br/> <b>Award full marks for correct answer regardless of working.</b><br/> <b>Accept 1029/1028.8/1028.83</b></p> | (2)  |

|  |  |                                                                                                 |  |
|--|--|-------------------------------------------------------------------------------------------------|--|
|  |  | D is incorrect because this suggests that it is relatively easy for firms to enter the industry |  |
|--|--|-------------------------------------------------------------------------------------------------|--|

**Section B**

| Question | With reference to Figure 1, calculate the percentage change in Deliveroo's total revenue between 2017 and 2021.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | Mark       |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(a)     | <b>Application 2</b><br><br><b>Quantitative skills assessed:</b><br><b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.<br><br>Up to 2 marks for calculation:<br>$(1824-277)=1547$ <b>(1)</b><br>$(1547/277) \times 100 = 558.48\%$ <b>(1)</b><br><br><b>NB: Award full marks for correct answer (558.48, 558.5, 558, 559) regardless of working. Award full marks if % is omitted.</b> | <b>(2)</b> |

| Question | With reference to Figure 2, explain the market structure of the UK food delivery market in 2021.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mark       |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(b)     | <b>Knowledge 2 Application 2</b><br><br><b>Quantitative skills assessed:</b><br><b>QS1:</b> Calculate, use and understand ratios and fractions<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.<br><br><b>Knowledge:</b><br>1 mark for the identification of the market structure: <ul style="list-style-type: none"> <li>Identification of oligopoly <b>(1)</b></li> </ul> 1 mark for identification of a characteristic of this market structure <ul style="list-style-type: none"> <li>A small number of firms dominate the market/interdependence/imperfect information/differentiated goods/high barriers to entry/high concentration ratio <b>(1)</b></li> </ul> <b>Application:</b><br>Up to 2 marks for application to context of the food delivery market <b>(1+1)</b> e.g.: <ul style="list-style-type: none"> <li>The 3-firm concentration ratio was 94% <b>(2)</b></li> </ul> | <b>(4)</b> |

**Section B**

| <b>Question</b> | With reference to Figure 2, calculate the percentage change in the price of the Model 3 Rear Wheel Drive vehicle between January and October 2022.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Mark</b> |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>7(a)</b>     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p>Up to 2 marks for calculation:</p> $(266-280) = -14 \text{ (1)} / (266-280) / 280 \times 100 \text{ (1)}$ $(-14/280) \times 100 = -5\% \text{ (1)}$ <p><b>NB: Award full marks for correct answer (5% or 5) regardless of working</b><br/> <b>NB: Award full marks if negative sign is missing</b></p> | <b>(2)</b>  |

| Question | <p>Reference to Extract A, analyse <b>two</b> reasons why sales of electric vehicles in China increased.</p> <p>Illustrate your answer with a supply and demand diagram.</p> <p>Answer</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7 (b)    | <p><b>Knowledge 2, Application 2, Analysis 2</b></p> <p>Quantitative skills assessed:</p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge</b></p> <p>Up to 2 marks for the diagram showing:</p> <ul style="list-style-type: none"> <li>• Original supply, demand and equilibrium price and quantity <b>(1)</b></li> <li>• New equilibrium price and quantity having correctly shifted demand <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to two marks for reasons from Extract A, e.g.:</p> <ul style="list-style-type: none"> <li>• Measures to reduce CO<sub>2</sub> emissions in order to meet its climate change goals by 2030 <b>(1)</b></li> <li>• Increasing the number of charging points <b>(1)</b></li> <li>• Raising the tax on non-electric vehicles <b>(1)</b></li> <li>• The global increase in the price of fuel has also led to an increase in demand for electric vehicles <b>(1)</b></li> </ul> <p><b>Application</b></p> <p>1 mark for correct shift of demand on diagram:</p> <ul style="list-style-type: none"> <li>• Shift demand to the right <b>(1)</b></li> </ul> <p>1 mark for reference to change in sales:</p> <ul style="list-style-type: none"> <li>• Between 2021 and 2022 the sales of electric vehicles in China increased by 83% to 5.92 million <b>(1)</b></li> </ul> |      |

**Section B**

| <b>Question</b> | With reference to Figure 1, calculate the percentage change in bicycle sales between 2022 and 2023.<br>You are advised to show your workings.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Mark</b> |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>7(a)</b>     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS1 Calculate, use and understand ratios and fractions</b><br/> <b>QS2: Calculate, use and understand percentages, percentage changes and percentage point changes</b><br/> <b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> <p>Up to 2 marks for correct calculation: e.g.</p> <p>1.87 million - 2.04 million = -0.17 <b>(1)</b><br/> <math>(-0.17/2.04) \times 100 = -8.33\%</math> <b>(1)</b></p> <p><b>NB: Award full marks for correct answer (-8.33%) regardless of working. Also accept -8.33, -8.3, -8</b></p> <p><b>NB: Award 1 mark for a positive value: 8.33, 8.3 and 8</b></p> | <b>(2)</b>  |

| Question | <p>With reference to Extract B, analyse the relationship between price elasticity of demand and total revenue. Illustrate your answer with an appropriate diagram(s).</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2</b></p> <p>Quantitative skills assessed:<br/> <b>QS4:</b> Construct and interpret a range of standard graphical forms.<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge</b></p> <p>Up to 2 marks for:</p> <ul style="list-style-type: none"> <li>• Correct definition (or formula) of PED/total revenue <b>(1)</b></li> <li>• Relevant diagram <b>(1)</b> e.g.</li> </ul> <div data-bbox="427 837 1273 1317"> </div> <p><b>Analysis</b></p> <p>Up to 2 marks for explanation of how a price change affects revenue. e.g.:</p> <ul style="list-style-type: none"> <li>• A rise in price where demand is inelastic <b>(1)</b> would cause revenue to rise <b>(1)</b> / a fall in price where demand is inelastic <b>(1)</b> would cause revenue to fall <b>(1)</b></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• A rise in price where demand is elastic <b>(1)</b> would cause revenue to fall <b>(1)</b> / a fall in price where demand is elastic <b>(1)</b> would cause revenue to rise <b>(1)</b></li> </ul> <p><b>Application</b></p> <p>Up to 2 marks for reference to Extract B, e.g.:</p> <ul style="list-style-type: none"> <li>• Dyson is entering the luxury segment of the electric car market <b>(1)</b></li> <li>• Demand for electric cars is more price inelastic <b>(1)</b></li> <li>• Specific reference to Extract B in diagram <b>(1)</b></li> <li>• Increased competition in luxury car market may make demand more price elastic <b>(1)</b></li> </ul> | (6)  |

**Section A**

| Question Number | Quantitative skills assessed                                                                                                                                                                  | Answer                                                                                                                                                                                                                                                                             | Mark       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>1</b>        | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                                       | <p><b>The only correct answer is B</b></p> <p><b>A</b> is not correct because this is profit maximisation</p> <p><b>C</b> is not correct because this is revenue maximisation</p> <p><b>D</b> is not correct as this will not maximise sales</p>                                   | <b>(1)</b> |
| <b>2</b>        |                                                                                                                                                                                               | <p><b>The only correct answer is D</b></p> <p><b>A</b> is not correct because the government does not own the business</p> <p><b>B</b> is not correct as these firms are not starting a new business</p> <p><b>C</b> is not correct because these firms produce the same items</p> | <b>(1)</b> |
| <b>3</b>        | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> | <p><b>The only correct answer is B</b></p> <p><b>A</b> is not correct because this is an average variable cost curve</p> <p><b>C</b> is not correct as there is no change in cost per output</p> <p><b>D</b> is not correct because the curve is upward sloping</p>                | <b>(1)</b> |
| <b>4</b>        |                                                                                                                                                                                               | <p><b>The only correct answer is C</b></p> <p><b>A</b> is not correct because this will affect the supply of labour</p> <p><b>B</b> is not correct as this will affect the supply of labour</p> <p><b>D</b> is not correct because will affect the supply of labour</p>            | <b>(1)</b> |

|   |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                               |     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 5 | <p><b>QS6:</b> Calculate cost, revenue and profit (marginal, average and totals)</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> | <p><b>The only correct answer is B</b></p> <p><i>A is not correct because this is an inaccurate calculation</i></p> <p><i>C is not as this is an inaccurate calculation</i></p> <p><i>D is not correct because this is average total costs at 4000 units</i></p>                                                                              | (1) |
| 6 | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p>                                                                                      | <p><b>The only correct answer is A</b></p> <p><i>B is not correct because it is not producing at the lowest point on the AC curve in the short run</i></p> <p><i>C is not correct because these firms make normal profits in the long run</i></p> <p><i>D is not correct because price is not equal to marginal cost in the short run</i></p> | (1) |

|   |                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                           |     |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 4 | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> <p><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)</p> | <p><b>The only correct answer is B</b></p> <p><i>A is not correct as there are increasing returns to scale</i></p> <p><i>C is not correct as diminishing returns have already set in</i></p> <p><i>D is not correct as diminishing returns have already set in</i></p>    | (1) |
| 5 |                                                                                                                                                                                                  | <p><b>The only correct answer is A</b></p> <p><i>B is not correct as this would affect the demand for labour</i></p> <p><i>C is not correct as this would increase the supply of labour</i></p> <p><i>D is not correct as this would affect the demand for labour</i></p> | (1) |
| 6 | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                  | <p><b>The only correct answer is A</b></p> <p><i>B is not correct because monopolistically competitive firms are productively inefficient and make normal profits in the long-run</i></p> <p><i>C is not correct as they make normal profits in the long-run</i></p>      | (1) |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                                                                                         | Answer                                                                                                                                                                                                                                                                                                                  | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        |                                                                                                                                                                                                                                                                                      | The correct answer is <b>B</b><br><b>A</b> is incorrect because this would increase the geographical mobility of labour<br><b>C</b> is incorrect because this would increase the geographical mobility of labour<br><b>D</b> is incorrect because this would increase the geographical mobility of labour               | (1)  |
| 2        | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                                                                                                                             | The correct answer is <b>D</b><br><b>A</b> is incorrect because price is greater than MC<br><b>B</b> is incorrect because the firm would remain in the industry as ceteris paribus it would be making supernormal profit<br><b>C</b> is incorrect because the firm is not producing at the lowest point on the AC curve | (1)  |
| 3        | <b>QS6:</b> Calculate cost, revenue and profit (marginal, average and total)<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                                             | The correct answer is <b>C</b><br><b>A</b> is incorrect because this is average fixed costs at 300 units<br><b>B</b> is incorrect because this is average variable costs at 400 units<br><b>D</b> is incorrect because this is average total costs at 300 units                                                         | (1)  |
| 4        | <b>QS1:</b> Calculate, use and understand ratios and fractions<br><b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes.<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms | The correct answer is <b>B</b><br><b>A</b> is incorrect because this is the four-firm concentration ratio<br><b>C</b> is incorrect because this is the four-firm concentration ratio plus others<br><b>D</b> is incorrect because this is the six-firm concentration ratio                                              | (1)  |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                                                                | Answer                                                                                                                                                                                                                                                                                                                                     | Mark |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | <p>QS4: Construct and interpret a range of standard graphical forms</p> <p>QS6: Calculate cost, revenue and profit (marginal, average, totals)</p> <p>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p><b>The only correct answer is C</b></p> <p>A is incorrect because decreasing returns to scale would relate to the long-run average cost curve</p> <p>B is incorrect because fixed costs would not be included in marginal costs</p> <p>D is incorrect because diseconomies of scale would relate to the long-run average cost curve</p> | (1)  |
| 2        | <p>QS6: Calculate cost, revenue and profit (marginal, average, totals)</p>                                                                                                                                                                                  | <p><b>The only correct answer is A</b></p> <p>B is incorrect because this is the average fixed cost</p> <p>C is incorrect because this is the average total cost</p> <p>D is incorrect because this is the average revenue</p>                                                                                                             | (1)  |
| 3        | <p>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                                                                                    | <p><b>The only correct answer is C</b></p> <p>A is incorrect because this is likely to increase unemployment</p> <p>B is incorrect as this affects the geographical mobility of labour</p> <p>D is incorrect because this is likely to increase unemployment</p>                                                                           | (1)  |
| 4        | <p>QS4: Construct and interpret a range of standard graphical forms</p> <p>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                            | <p><b>The only correct answer is B</b></p> <p>A is incorrect because the equilibrium output is not at the lowest point of the AC curve</p>                                                                                                                                                                                                 | (1)  |

|   |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                             |            |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 5 | <b>QS4: Construct and interpret a range of standard graphical forms</b><br><b>QS6: Calculate cost revenue and profit (marginal, average, totals)</b><br><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b> | <b>The only correct answer is C</b><br><br>A is incorrect because this is the AFC at 20 000 shirts<br>B is incorrect because this is the AFC at 15 000 shirts<br>D is incorrect because this is the AFC at 5 000 shirts                                                                                                     | <b>(1)</b> |
| 6 | <b>QS8: Make calculations of elasticity and interpret the result</b><br><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b>                                                                                 | <b>The only correct answer is B</b><br><br>A is incorrect because the demand is more price elastic in the daytime than the evening.<br>C is incorrect because the supply of seats in a cinema would be perfectly inelastic<br>D is incorrect because the elasticity of supply will not vary between the daytime and evening | <b>(1)</b> |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                 | Answer                                                                                                                                                                                                                                                                                                          | Mark |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                            | The only correct answer is D<br><br>A is incorrect because this would not be affected by technical economies of scale<br>B is incorrect because this would not be affected by technical economies of scale<br>C is incorrect because economies of scale affect long-run average costs                           | (1)  |
| 2        | QS6: Calculate cost, revenue and profit (marginal, average, totals)<br><br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | The only correct answer is B<br><br>A is incorrect because this is the marginal cost of increasing the number of haircuts from 3 to 4<br>C is incorrect because this is the average variable cost of 3 haircuts<br>D is incorrect because this is the average fixed cost of 4 haircuts                          | (1)  |
| 3        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                            | The only correct answer is D<br><br>A is incorrect because the demerger would have no effect on external economies of scale<br>B is incorrect because the demerger would result in GSK becoming more specialised<br>C is incorrect because GSK would be unlikely to want its long-run average costs to increase | (1)  |
| 4        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.        | The only correct answer is A<br><br>B is incorrect because supernormal profit will encourage market entry<br>C is incorrect because normal profit will be made in the long-run<br>D is incorrect because normal profit will be made in the long-run                                                             | (1)  |
| 5        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.        | The only correct answer is C<br><br>A is incorrect because supernormal profit and price will change                                                                                                                                                                                                             | (1)  |



## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                                                                                     | Answer                                                                                                                                                                                                                                                                                                                                                            | Mark |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                   | <p>The only correct answer is B</p> <p>A is incorrect because supernormal profit will be eliminated</p> <p>C is incorrect because the producer will make normal profit and therefore remain in the market</p> <p>D is incorrect because market concentration will fall as new firms enter the market</p>                                                          | (1)  |
| 2        | <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                                                                                                  | <p>The only correct answer is C</p> <p>A is incorrect because a marginal cost pricing strategy is where <math>MC=AR</math></p> <p>B is incorrect because a limit pricing strategy is where all consumers would pay the same price</p> <p>D is incorrect because a predatory pricing strategy sets the price below the average variable cost for all consumers</p> | (1)  |
| 3        | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p>The only correct answer is D</p> <p>A is incorrect because the producer surplus will decrease</p> <p>B is incorrect because fixed costs will not change</p> <p>C is incorrect because this is likely to cause a decrease in dynamic efficiency</p>                                                                                                             | (1)  |
| 4        | <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p>The only correct answer is A</p> <p>B is incorrect because this is average variable cost</p> <p>C is incorrect because this is average fixed cost at an output of 10 000</p> <p>D is incorrect because this is the average total cost at an output of 20 000</p>                                                                                               | (1)  |
| 5        | <p><b>QS8:</b> Make calculations of elasticity and interpret the result</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>                                                                                      | <p>The only correct answer is A</p> <p>B is incorrect because this affects the price elasticity of supply of labour</p> <p>C is incorrect because this affects the price elasticity of supply of labour</p> <p>D is incorrect because this affects the supply of labour</p>                                                                                       | (1)  |



**Section B**

| Question Number | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark       |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>7 (a)</b>    | <p><b>QS6:</b> Calculate cost, revenue and profit.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Application 2</b><br/>Up to 2 marks for calculation:</p> <ul style="list-style-type: none"> <li>• Total costs = total revenue - profit <b>(1)</b></li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• 73822 bn Rs - 22854 bn Rs <b>(1)</b></li> <li>• = 50968 bn Rs <b>(1)</b></li> </ul> <p><b>NB: Award full marks for correct answer regardless of working.</b></p> <p><b>If Bn omitted from answer award 1 mark only</b></p> | <b>(2)</b> |

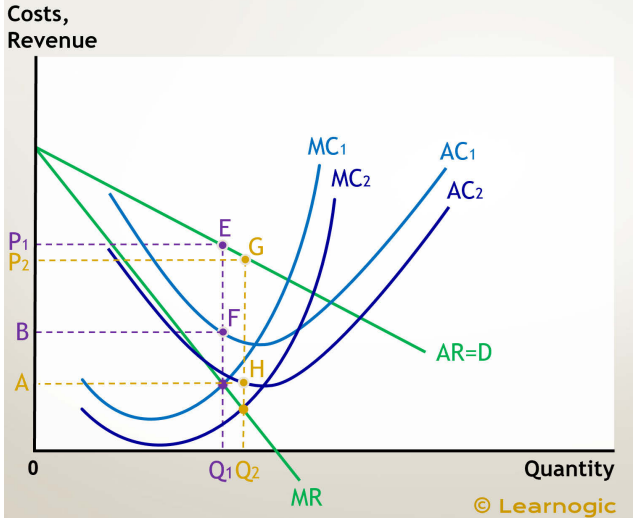
## Section B

| Question | With reference to Figure 1, calculate the percentage change in the wholesale price of gas from 1 April 2021 to 1 April 2022. You are advised to show your working.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(a)     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p>Up to 2 marks for calculation:<br/>           • <math>280\text{p} - 47\text{p} = 233\text{p}</math> <b>(1)</b><br/> <math>233\text{p}/47\text{p} \times 100 = 495.74\%</math> <b>(1)</b></p> <p><b>NB: Award full marks for correct answer (495.7447%, 495.745%, 495.7%, 496%) regardless of working</b><br/> <b>Award full marks if % missing</b></p> | (2)  |

**Section B**

| Question | With reference to Figure 1, calculate the change in Uniqlo's total costs between 2021 and 2022.<br>Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mark       |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(a)     | <p><b>Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p>Up to 2 marks for calculation:<br/>           2021 total costs: <math>(2132 - 1073) = ¥1\,059\text{ bn}</math><br/>           2022 total costs: <math>(2301 - 1206) = ¥1\,095\text{ bn}</math><br/> <math>1\,095 - 1\,059</math> <b>(1)</b><br/>           Change in total costs = <math>¥36\text{ bn}</math> <b>(1)</b></p> <p>Percentage change <math>(36/1059) \times 100</math> <b>(1)</b> = 3.4% <b>(1)</b></p> <p><b>NB: Award full marks for correct answer (36 bn/ 3.4%) regardless of working</b><br/> <b>Award only 1 mark if billion/% is not included in final answer</b></p> | <b>(2)</b> |

| Question | With reference to the first paragraph of Extract A, explain what is meant by the term 'organic growth'.<br>Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mark       |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(b)     | <p><b>Knowledge 2 Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge:</b><br/>           Up to marks for correct definition and development of the term 'organic growth' <b>(1+1)</b> e.g.:</p> <ul style="list-style-type: none"> <li>Organic growth refers to the expansion of a company's operations <b>(1)</b><br/>             Internally/<br/>             e.g. Marketing/opening more stores/ hiring more workers / without relying on mergers/acquisitions/integration <b>(1)</b></li> </ul> <p><b>Application:</b><br/>           Up to 2 marks for application to context of Uniqlo's organic growth <b>(1+1)</b> e.g.:</p> | <b>(4)</b> |

| Question | With reference to Extract A, examine the likely effect of a decrease in variable costs on Tesla's profits. Illustrate your answer with an appropriate diagram(s).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(c)     | <p><b>Answer</b></p> <p><b>Knowledge 2 Application 2 Analysis 2 Evaluate 2</b></p> <p>Quantitative skills assessed:<br/> <b>QS4:</b> Construct and interpret a range of standard graphical forms<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>  <p><b>Knowledge</b></p> <p>Up to 2 marks for drawing a diagram that shows knowledge of:</p> <ul style="list-style-type: none"> <li>• Original supernormal profit/loss area <b>(1)</b></li> <li>• New supernormal profit/loss area after MC and AC shift down <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for explanation of or diagrammatic representation of:</p> <ul style="list-style-type: none"> <li>• Profit maximising price will fall from <math>OP_1</math> to <math>OP_2</math> <b>(1)</b></li> <li>• Increase in profit maximising output from <math>OQ_1</math> to <math>OQ_2</math> <b>(1)</b></li> <li>• Revenue would rise from <math>OP_1 \times OQ_1</math> to <math>OP_2 \times OQ_2</math> <b>(1)</b></li> </ul> <p><b>N.B. Allow 1 mark for answers which have only shifted AC curve as follows</b></p> <ul style="list-style-type: none"> <li>• Increase in supernormal profit/fall in loss <b>(1)</b></li> </ul> <p><b>Application</b></p> <p>Up to 2 marks for reference to Extract A, e.g.:</p> <ul style="list-style-type: none"> <li>• Senior managers are considering ways of decreasing variable costs <b>(1)</b></li> <li>• Lower cost car parts <b>(1)</b></li> <li>• Reducing the number of workers on production lines <b>(1)</b></li> <li>• Tesla making a quarterly loss of \$709.6m in one quarter <b>(1)</b></li> </ul> |      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <p><b>Evaluation</b></p> <p>Up to 2 marks for evaluative comments, e.g.:</p> <ul style="list-style-type: none"> <li>• Magnitude: depends on size of the fall in variable cost <b>(1)</b>, a small change will have little impact because Tesla's losses are significant <b>(1)</b></li> <li>• Rise in profit (lower loss) will depend on Tesla's ability to meet demand <b>(1)</b> because there have been significant problems regarding failure to meet production targets e.g. a major shortfall in December 2017 <b>(1)</b></li> <li>• Using cheaper car parts may result in a fall in consumer demand <b>(1)</b> as consumers switch to better quality cars sold by competitors <b>(1)</b></li> <li>• Reducing workers on production line will reduce output levels further <b>(1)</b> leading to larger short-term losses <b>(1)</b></li> <li>• Rise in profit (lower loss) may be offset by a rise in fixed cost/fall in demand <b>(1)</b>, which would cause an upward shift in AC curve/ downward shift in AR and MR curves <b>(1)</b></li> </ul> | <b>(8)</b> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

| Question | With reference to Figure 2 and Extract B, examine the likely impact on the profits of Samsung of opening a smartphone factory in India.<br>Use an appropriate diagram in your answer.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mark |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <div data-bbox="528 692 1098 1160"> </div> <p><b>Knowledge</b></p> <p><b>Up to 2 marks for drawing a diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>• Original MC, AC, MR, AR, with profit maximising equilibrium (1)</li> <li>• Fall in costs showing downward shift in AC to AC<sub>1</sub> /</li> </ul> <p><b>Or</b></p> <ul style="list-style-type: none"> <li>• a downward shift in both AC to AC<sub>1</sub> and MC to MC<sub>1</sub> (1)</li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for impact on supernormal profits e.g.:</p> <ul style="list-style-type: none"> <li>• Original supernormal profits A,B,AC,P (1)</li> <li>• New supernormal profit area C,E,AC<sub>1</sub>,P<sub>1</sub> (1)</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>• Labour costs in India are 50% lower than in China (1)</li> <li>• Skilled labour costs up to 15% less than in China</li> <li>• The Make in India programme offers tax relief to firms producing in India (1)</li> <li>• Transportation costs are reduced (1)</li> </ul> <p><b>Evaluation</b></p> <p><b>Up to 2 marks for evaluative comments (2+0 or 1+1), e.g.:</b></p> <ul style="list-style-type: none"> <li>• Imported components are expensive and taxed at 12.5% increasing costs if not purchasing lower priced components in the expanding Indian market (1)</li> </ul> |      |

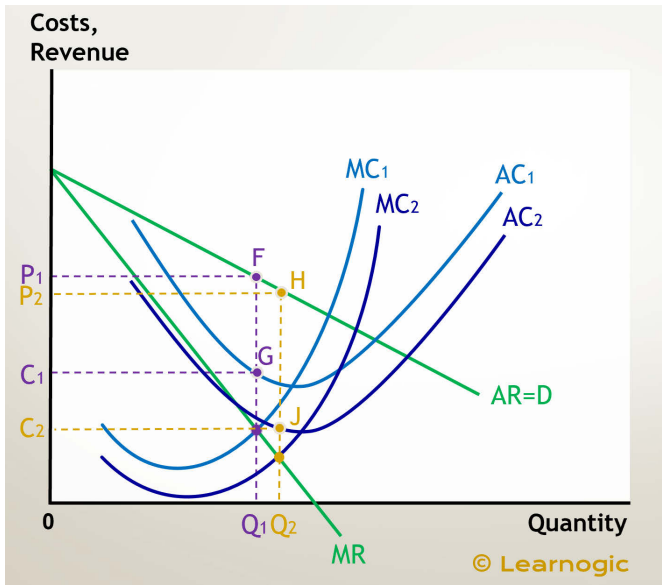
|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <ul style="list-style-type: none"><li>• Insufficient supply of domestic smartphone components forcing firms to purchase expensive imports <b>(1)</b></li><li>• Labour costs would be even lower if firms manufactured in Indonesia or Vietnam <b>(1)</b></li><li>• The power supply is unreliable so reducing output <b>(1)</b> increasing costs and lowering profit <b>(1)</b></li><li>• Transport costs may rise <b>(1)</b> as it is slow and costly reducing profits <b>(1)</b></li></ul> | <b>(8)</b> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|



| Question | With reference to Figure 1 and Extract A, examine the impact of the increase in the wholesale price of natural gas on the cost of production for UK gas suppliers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge</b></p> <p>Up to 2 marks for knowledge of the impact on suppliers' costs.:</p> <ul style="list-style-type: none"> <li>• Identification of natural gas as variable costs <b>(1)</b></li> <li>• Variable costs are a cost that varies with the level of output <b>(1)</b></li> <li>• Total costs are variable costs plus fixed costs <b>(1)</b></li> <li>• Increase in costs/total costs <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for expansion of impact on suppliers' costs:</p> <ul style="list-style-type: none"> <li>• An increase in variable causes an increases in marginal cost <b>(1)</b></li> <li>• Increase in marginal costs increases in average total cost <b>(1)</b></li> <li>• Credit for relevant diagram <b>(1+1)</b></li> </ul> <p><b>Application</b></p> <p><b>Up to 2 marks for relevant application from Figure 1 and extract 1 e.g.:</b></p> <ul style="list-style-type: none"> <li>• Purchasing natural gas accounts for approximately 35% of the total costs for large gas suppliers <b>(1)</b></li> <li>• This increase in the wholesale price made it impossible for 31 smaller suppliers to cover their costs <b>(1)</b></li> <li>• Wholesale price increased e.g. from 47p to 280p per therm / 495.74% <b>(1)</b></li> <li>• Companies have to purchase gas at world market prices <b>(1)</b></li> </ul> <p><b>Evaluation</b></p> <p><b>Up to 2 marks for evaluative comments (1+1) or (2+0), e.g.:</b></p> <ul style="list-style-type: none"> <li>• Significance of the rise in wholesale price – 496% <b>(1)</b></li> </ul> |      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <ul style="list-style-type: none"> <li>Purchasing natural gas accounts for a significant proportion of the total costs for large suppliers <b>(1)</b> even more significant for small suppliers as 31 left the market <b>(1)</b></li> <li>Suppliers may have offset the rise in the wholesale price by decreasing other costs of production <b>(1)</b></li> <li>In the long-run, the impact of the rise in cost may not be as significant <b>(1)</b> as prices fell during March 2022 <b>(1)</b></li> <li>Depends on the timing of the impact on costs of production <b>(1)</b></li> </ul> | <b>(8)</b> |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

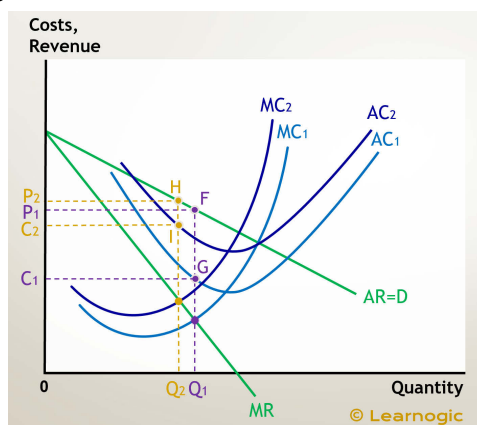
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b> | With reference to Extract A and Extract B, discuss the likely effects of the increase in the energy price cap on both energy suppliers and consumers. Illustrate your answer with an appropriate cost and revenue diagram.<br><b>Indicative content</b>                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>7(e)</b>     | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> |

| Question | With reference to the first two paragraphs of Extract B, examine the impact of Tesla producing its electric vehicles in China on its costs and profits. Illustrate your answer with a costs and revenues diagram.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mark |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Decreasing costs</b></p>  <p><b>Knowledge</b></p> <p>Up to 2 marks for drawing a diagram that shows knowledge of:</p> <ul style="list-style-type: none"> <li>Original AR, MR, AC<sub>1</sub>, MC<sub>1</sub> and profit-maximising equilibrium (1)</li> <li>Original supernormal profit area P<sub>1</sub>FGC<sub>1</sub> (1)</li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for linked explanation of impact on Tesla's profits e.g.:</p> <ul style="list-style-type: none"> <li>Decrease in AC causes a downward shift in MC and AC curves to MC<sub>2</sub> and AC<sub>2</sub> (1)</li> <li>Area of new supernormal profit identified P<sub>2</sub>HJC<sub>2</sub> (1)</li> </ul> <p><b>Application</b></p> <p><b>Up to two marks for reference to Extract B:</b></p> <ul style="list-style-type: none"> <li>Tesla was able to take advantage of government subsidies aimed at promoting the domestic electric vehicle industry lowering their costs (1)</li> <li>Tesla benefited from low-cost labour (1)</li> <li>China has become a key manufacturing centre for Tesla, with the Shanghai factory producing over 710 000 vehicles in 2022 (1)</li> <li>Tesla improved its efficiency from producing in Shanghai (1)</li> </ul> |      |

**Evaluation**

Up to 2 marks for evaluative comments, e.g.:

- Costs may have risen (1) as production has been difficult in China/ Tesla faced supply chain disruptions due to the global health crisis/ Tesla's costs of production have risen/Tesla had to pay taxes on imported components and finished vehicles (1)
- When the subsidies end costs will rise again reducing profit (1+1)
- As averages incomes in China rise the wages will rise reducing the costs advantages (1+1)

**Increasing costs****Knowledge**

Up to 2 marks for drawing a diagram that shows knowledge of:

- Original AR, MR, AC<sub>1</sub>, MC<sub>1</sub> and profit-maximising equilibrium (1)
- Original profit area P<sub>1</sub>FGC<sub>1</sub> (1)

**Analysis**

Up to 2 marks for linked explanation of impact on Tesla's profits e.g.:

- Increase in MC and AC causes an upward shift in MC and AC curves to MC<sub>2</sub> and AC<sub>2</sub> (1)
- Area of new supernormal profit P<sub>2</sub>HIC<sub>2</sub> (1)

**Application**

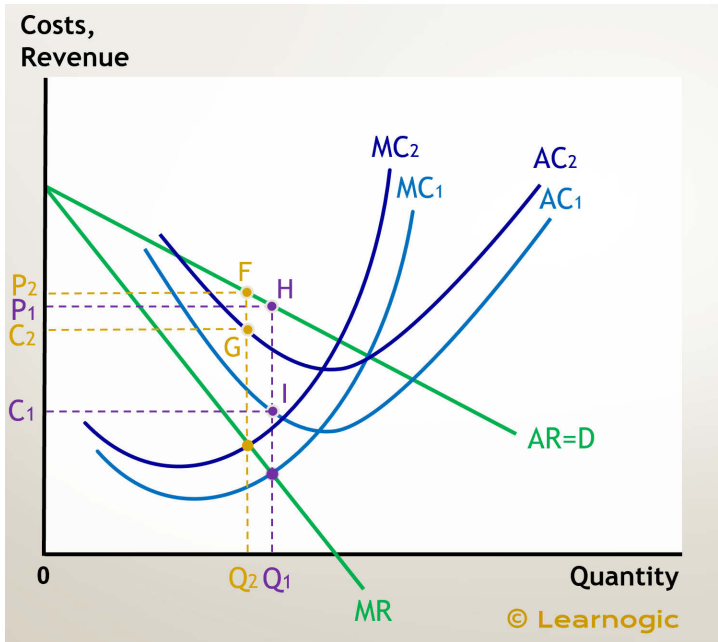
Up to 2 marks for application to Extract B

- Production has been difficult in China (1)
- Tesla faced supply chain disruptions due to the global health crisis (1)
- Tesla's costs of production have risen (1)
- Tesla had to pay taxes on imported components and finished vehicles (1)

**Evaluation**

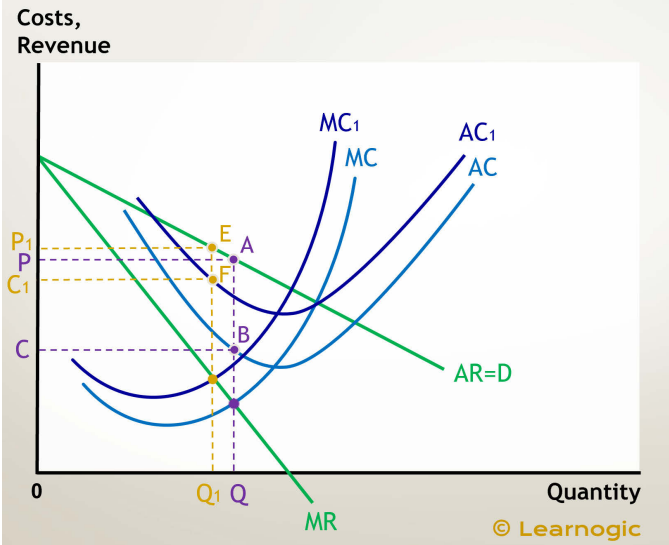
- Costs may in fact have fallen (1) as Tesla was able to take advantage of government subsidies aimed at promoting the domestic electric vehicle industry lowering their costs /Tesla benefited from low-cost labour/ China has become a key manufacturing centre for Tesla, with the Shanghai factory producing over 710 000 vehicles in 2022/ Tesla improved its efficiency from producing in Shanghai (1)
- Depends on the proportion of total costs labour makes up if it is capital intensive it will be less important (1+1)
- In the long run the supply chain problems will reduce helping to lower costs and increasing profits (1+1)

**(8)**

| Question | With reference to Extract B, examine the impact of rising energy costs on the profits of a garment manufacturer in Bangladesh. Illustrate your answer with an appropriate diagram.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(c)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>  <p><b>Knowledge</b></p> <p>Up to 2 marks for drawing a diagram that shows knowledge of:</p> <ul style="list-style-type: none"> <li>• Original equilibrium price and output: <math>Q_1P_1</math> (1)</li> <li>• Increase in costs showing upward shift from <math>MC_1</math> to <math>MC_2</math> and <math>AC_1</math> to <math>AC_2</math> (1)</li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for illustrating or explaining the impact of the increase in costs on the profits of a garment manufacturer on diagram e.g.:</p> <ul style="list-style-type: none"> <li>• Fall in supernormal profits (1) from <math>HIC_1P_1</math> to <math>FGC_2P_2</math> (1)</li> </ul> <p><b>Application</b></p> <p>Up to 2 marks for reference to Extract B</p> <ul style="list-style-type: none"> <li>• 50% increase in energy costs (1)</li> <li>• Garment manufacturers are having to claim subsidies from the government Bangladesh (1)</li> <li>• Energy costs are a variable cost for garment manufacturers (1)</li> </ul> | (8)  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p><b>Evaluation</b></p> <p>Up to 2 marks for evaluative comments (1+1 or 2+0) e.g.:</p> <ul style="list-style-type: none"> <li>The Government of Bangladesh is providing subsidies to SMEs <b>(1)</b> which may limit the negative impact on profit <b>(1)</b></li> <li>Rising energy prices may not continue in the long-run <b>(1)</b> helping profits to recover in the long-run <b>(1)</b></li> <li>The 50% rise in energy costs is very significant <b>(1)</b> causing a substantial reduction in profit <b>(1)</b></li> <li>Significance of energy as a proportion of total costs <b>(1)</b> will determine the size of the shift in MC and AC <b>(1)</b></li> <li>Government subsidies may reduce costs <b>(1)</b> so there would be less impact on the profit of a garment manufacturing business <b>(1)</b></li> <li>Recent high rates of inflation may allow garment firms to also raise their prices <b>(1)</b>, so the increased energy costs may not have such an impact on profits <b>(1)</b></li> <li>Some firms will leave the market so others will survive in the long run <b>(1)</b></li> </ul> |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| Question | With reference to extract B, analyse two likely effects on the labour market for garment workers of the possible increase in the minimum wage to 22000 taka.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mark       |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge and analysis</b></p> <p><b>1 mark for identifying each effect and 1 mark for each linked expansion (2k+2An)</b></p> <ul style="list-style-type: none"> <li>Increasing minimum wages causes workers to lose their jobs <b>(1k)</b> SMEs cannot afford to employ as many individuals at the higher wage rate causing individuals to lose their jobs <b>(1An)</b></li> <li>An increased supply of labour/extension in labour supply <b>(Kn)</b> because the higher wage rate acts as an incentive for more people to join the labour force <b>(An)</b></li> <li>An increase in minimum wage may increase motivation <b>(Kn)</b> increasing output/productivity <b>(An)</b></li> <li>If used, correct diagram showing the increase in the NMW causing a contraction of demand <math>N_2</math> to <math>N_4</math> and an extension of supply <math>N_1</math> to <math>N_3</math> <b>(1+1)</b></li> </ul> | <b>(6)</b> |

| Question | <p>With reference to the last paragraph of Extract B, examine the likely impact on McDonald's profits by switching 'to suppliers that use more ethical and sustainable methods of production'.</p> <p>Illustrate your answer with an appropriate diagram.</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mark |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge</b></p>  <p>Up to 2 marks for drawing a diagram that shows knowledge of:</p> <ul style="list-style-type: none"> <li>AR, MR, AC, MC and profit maximisation equilibrium <b>(1)</b></li> <li>Area of initial supernormal profit identified ABCP <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for showing:</p> <ul style="list-style-type: none"> <li>Increase in MC and AC to MC<sub>1</sub> AC<sub>1</sub> <b>(1)</b></li> <li>New area of supernormal profit EFC<sub>1</sub>P<sub>1</sub> <b>(1)</b></li> </ul> <p>NB Accept new area of profit if AR/MR has also been increased with supporting explanation</p> <p><b>Application</b></p> <p>Up to 2 marks for reference to Extract B:</p> <ul style="list-style-type: none"> <li>Deforestation-free supply chains for beef <b>(1)</b></li> <li>Sustainable fisheries for fish <b>(1)</b></li> <li>Sustainable palm oil production <b>(1)</b></li> <li>Make a positive impact on the planet <b>(1)</b></li> </ul> |      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <ul style="list-style-type: none"> <li>Locally-sourced ingredients to reduce its carbon footprint <b>(1)</b></li> </ul> <p><b>Evaluation</b><br/> <b>Up to 2 marks for evaluative comments (1+1 or 2 + 0), e.g.:</b></p> <ul style="list-style-type: none"> <li>It depends on the magnitude of the increase in costs <b>(1)</b></li> <li>If the cost increases can be offset by price increases it may not impact profits <b>(1)</b></li> <li>Improvement in sustainable farming may reduce these costs <b>(1)</b></li> <li>Consumers are becoming more aware of health risks and choosing healthier options <b>(1)</b> this may increase revenue, increasing profits <b>(1)</b></li> <li>There is a growing demand for fresh/organic food <b>(1)</b></li> <li>Consumers may be willing to pay more for ethically sourced food, which offsets the increase in costs <b>(1+1)</b></li> </ul> | <b>(8)</b> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

**Section A**

| Question | Quantitative skills assessed                                                                             | Answer | Mark       |
|----------|----------------------------------------------------------------------------------------------------------|--------|------------|
| <b>1</b> |                                                                                                          | C      | <b>(1)</b> |
| <b>2</b> | <b>QS2:</b> Calculate, use and understand percentages, percentage changes and percentage point changes.  | D      | <b>(1)</b> |
| <b>3</b> |                                                                                                          | A      | <b>(1)</b> |
| <b>4</b> | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | B      | <b>(1)</b> |
| <b>5</b> | <b>QS9:</b> Interpret, apply and analyse information in written, graphical tabular and numerical forms.  | D      | <b>(1)</b> |
| <b>6</b> | <b>QS8:</b> Make calculations of elasticity and interpret the result.                                    | A      | <b>(1)</b> |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                     | Answer                                                                                                                                                                                                                                                                                                                                       | Mark |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                                                                | <p><b>The only correct answer is D</b></p> <p><i>A is not correct because the takeover would decrease contestability</i></p> <p><i>B is not correct as the takeover will combine the two businesses and is likely to increase total costs</i></p> <p><i>C is not correct because the takeover would reduce competition in the market</i></p> | (1)  |
| 2        | <p>QS2: Calculate, use and understand percentages, percentage changes and percentage point changes.</p> <p>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> | <p><b>The only correct answer is C</b></p> <p><i>A is not correct as it does not use the correct firms in calculation</i></p> <p><i>A is not correct as it does not use the correct firms in the calculation</i></p> <p><i>D is not correct because it includes 'others' in the calculation</i></p>                                          | (1)  |
| 3        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                                                                 | <p><b>The only correct answer is D</b></p> <p><i>A is not correct as the increase in minimum wage would cause unemployment</i></p> <p><i>B is not correct because there is a contraction of demand</i></p> <p><i>C is not correct because there is an extension of supply</i></p>                                                            | (1)  |

## Section A

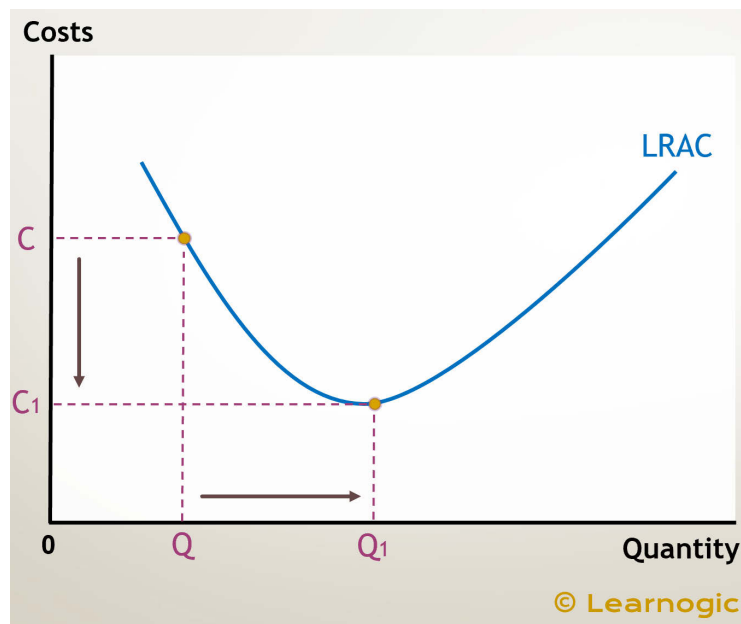
| Question | Quantitative skills assessed                                                                                                                                                           | Answer                                                                                                                                                                                                                                                                                                 | Mark       |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>1</b> | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                               | <b>The only correct answer is C</b><br><br>A is incorrect because the firms are at the same stage of production<br>B is incorrect because the firms are at the same stage of production<br>D is incorrect because the firms are in the same industry                                                   | <b>(1)</b> |
| <b>2</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | <b>The only correct answer is D</b><br><br>A is incorrect because marginal costs are rising<br>B is incorrect because there are diseconomies of scale<br>C is incorrect because marginal costs are rising                                                                                              | <b>(1)</b> |
| <b>3</b> | <b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals)<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <b>The only correct answer is B</b><br><br>A is incorrect because this is the increase in the wage for the original 50 workers<br>C is incorrect because this is the total cost of employing 50 workers<br>D is incorrect because this is the total cost of employing 51 workers                       | <b>(1)</b> |
| <b>4</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | <b>The only correct answer is D</b><br><br>A is incorrect because the number of firms would fall<br>B is incorrect because the firm is making a loss<br>C is incorrect because the firm is making a loss and the number of firms would fall                                                            | <b>(1)</b> |
| <b>5</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.    | <b>The only correct answer is D</b><br><br>A is incorrect because at this level of output profits would be maximised<br>B is incorrect because at this level of output total revenue will not be maximised<br>C is incorrect because at this level of output average revenue will be greater than zero | <b>(1)</b> |
| <b>6</b> | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                               | <b>The only correct answer is B</b><br><br>A is incorrect because this indicates that barriers to entry are low<br>C is incorrect because this would encourage entry into the industry                                                                                                                 | <b>(1)</b> |

| Question | With reference to Extract B, explain what is meant by 'economies of scale'.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mark       |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(c)     | <p><b>Knowledge 2 Application 2</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge:</b><br/> Up to 2 marks for the definition of economies of scale:<br/> When long-run average costs fall <b>(1)</b> as output increases <b>(1)</b></p> <div data-bbox="539 824 1034 1227"> </div> <p>Diagram showing LRAC <b>(1)</b> with correct annotation to show LRAC falling as output increases <b>(1)</b></p> <p><b>Application:</b><br/> Up to 2 marks for application to the context e.g.:</p> <ul style="list-style-type: none"> <li>• Samsung has set up in India to benefit from economies of scale <b>(1)</b> for example, technical/purchasing/marketing <b>(1)</b></li> <li>• Samsung opened the world's largest mobile phone factory <b>(1)</b></li> <li>• Foxconn has set up in India to reduce long-run average costs <b>(1)</b></li> </ul> | <b>(4)</b> |

| Question | With reference to Extract A, analyse <b>two</b> ways that pharmaceutical companies may benefit from external economies of scale.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 7(c)     | <p><b>Knowledge 2 Application 2 Analysis 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge and analysis</b></p> <p>Up to 2 knowledge marks for identifying two ways and up to 2 analysis marks for linked explanations:</p> <ul style="list-style-type: none"> <li>• Skilled workforce <b>(1K)</b> with specialised knowledge relevant to that industry/ reducing recruitment/training costs <b>(1AN)</b></li> <li>• Improved infrastructure/ investment in road and railways <b>(1K)</b> reducing transportation time/ costs/ improves labour mobility <b>(1AN)</b></li> <li>• Research partnerships <b>(1K)</b> locating close to other firms makes resource sharing easier/ reducing R&amp;D costs <b>(1AN)</b></li> <li>• Low rate of corporation tax <b>(1K)</b> provides a cost advantage of operating in Ireland/ meaning more profits are kept by pharmaceutical businesses in Ireland <b>(1AN)</b></li> </ul> <p><b>Application</b></p> <p>Up to 2 marks for use of the context e.g.</p> <ul style="list-style-type: none"> <li>• Over 85 pharmaceutical companies operate in Ireland <b>(1)</b></li> <li>• Approximately 30 000 highly skilled workers <b>(1)</b></li> <li>• Invested heavily/ €35 billion investment into the country's transport system / in improving roads and railways <b>(1)</b></li> <li>• <b>Businesses and universities</b> share research and development (R&amp;D) costs <b>(1)</b></li> <li>• Students leave university with the skills required to work in the pharmaceutical industry <b>(1)</b></li> <li>• Corporation tax rate of 12.5% <b>(1)</b></li> </ul> |  |

| Question Number | Indicative content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 (e)           | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Quantitative skills assessed</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, application, analysis (8 marks) – indicative content</b></p> <p>Definition of horizontal integration- when two firms merge at the same stage of the production process in the same industry</p> <ul style="list-style-type: none"> <li>• Firms in the Indian steel industry are dynamically efficient</li> <li>• Tata steel is the largest producer in India</li> <li>• It would become Europe's second largest steel producer generating €15bn in sales</li> <li>• Firms would be able to recover the fall of profits of between 8% and 17% after the tariff was imposed by the US their biggest export market</li> <li>• The efficiency savings would be worth over €400m</li> <li>• Reducing the number of employees by 4000 in administration (reduction in X-inefficiency) and manufacturing would reduce costs, increasing profits</li> <li>• The firm would benefit from lower LRAC - economies of scale</li> <li>• The firm may reach their minimum efficient scale</li> <li>• The firm may become more productively efficient</li> <li>• Dynamic efficiency may increase</li> <li>• Stronger monopoly power gives the firm greater price setting ability and higher prices may increase profits</li> </ul> |

Example of diagram showing LRAC falling as output increases



| Level          | Mark | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0    | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Level 1</b> | 1–3  | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                         |
| <b>Level 2</b> | 4–6  | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.                                             |
| <b>Level 3</b> | 7–8  | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |

|                | <b>Evaluation (6 marks) – indicative content</b> <ul style="list-style-type: none"> <li>• Culture clashes may make it difficult for the firms to merge</li> <li>• Uncertainty may reduce employees' motivation and productivity</li> <li>• Diseconomies of scale may occur, e.g. if communication is difficult within the merged firm</li> <li>• Legal costs are high when merging, reducing profits</li> <li>• The firm will not become the largest steel producer in the market, limiting their price setting ability</li> <li>• Short-run impacts are not as significant as long-run impacts on the firm, it will take time for the new firm to establish how it will operate to see the maximum benefit</li> <li>• Cost saving might not be big enough to recover costs from fall in profits after tariffs imposed by the US</li> <li>• Risk of government intervention</li> <li>• Magnitude of the benefits in terms of size of the new merged firm</li> <li>• Tata Steel is already dynamically efficient</li> </ul> |                                                                                                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Descriptor                                                                                                                                                                               |
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | No rewardable material.                                                                                                                                                                  |
| <b>Level 1</b> | 1–2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                           |
| <b>Level 2</b> | 3–4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Evidence of evaluation of alternative approaches<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.               |
| <b>Level 3</b> | 5–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Evaluation recognises different viewpoints and/or is critical of the evidence.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |

| Question         | <p>Evaluate the impact that the size of a business has on its efficiency. Illustrate your answer with an appropriate diagram(s).</p> <p><b>Indicative content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>10</b></p> | <p>Indicative content guidance</p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p>Quantitative skills assessed:</p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <ul style="list-style-type: none"> <li>• Larger businesses, such as Nestlé, might be more productively efficient than smaller businesses (producing at the MES)</li> <li>• Nestlé has access to more resources and economies of scale, which can lead to increased efficiency compared to smaller food-producing businesses</li> <li>• Large production runs in producing food and beverages will lower unit costs, and will enable fixed costs to be spread over a larger output. This may enable the business to produce at the productively efficient level of output</li> </ul> <div data-bbox="630 1120 1145 1541" data-label="Figure"> <p>© Learnogic</p> </div> <ul style="list-style-type: none"> <li>• The large businesses produce at <math>Q_1</math> compared to <math>Q</math> and is able to produce at a lower cost <math>C_1</math></li> <li>• Large businesses, such as Nestlé, have specialised division of labour or capital equipment e.g. specialist packaging machines. These might improve efficiency in production, lowering average cost when producing at a higher level of output</li> <li>• Large businesses might be more dynamically efficient</li> <li>• The large business likely to have more price setting ability in the market allowing them to set higher prices and make supernormal profits. The supernormal profits can be reinvested into improving production or better-quality capital, investing in research and development</li> </ul> |

- |  |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>• Small businesses in perfect competition/monopolistic competition are unable to make supernormal profits in the long-run and are therefore unable to invest in improving dynamic efficiency</li><li>• Large businesses that are cross-subsidising might be more allocatively efficient than smaller firms as they can reallocate profits to lower the prices of essential goods</li></ul> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

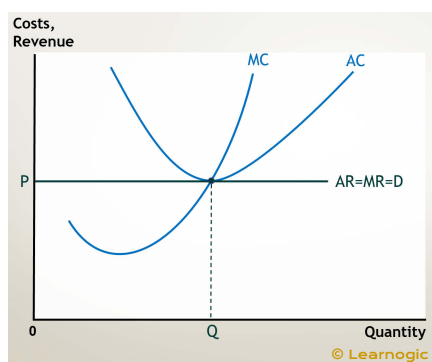
**NB: award a maximum of level 3 if no appropriate diagram is drawn**

**Accept reverse argument as KAA**

| Level          | Mark  | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0     | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Level 1</b> | 1–3   | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                            |
| <b>Level 2</b> | 4–6   | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Limited application of knowledge and understanding to economic problems in context.<br>A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.                                                                                                                                        |
| <b>Level 3</b> | 7–9   | Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.               |
| <b>Level 4</b> | 10–12 | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |

**Evaluation (8 marks) – indicative content**

- A large business may suffer from diseconomies of scale making them less productively efficient
- If suffering from x-inefficiency, the large firms' average costs will rise increasing productive inefficiency
- Small businesses may operate in a niche market where they are able to set high prices and make super normal profits that can be reinvested back into dynamic efficiency
- Large businesses may have less incentive to innovate and find more efficient ways of doing things because of their dominant market position and economies of scale
- A large business may suffer from inertia and be slow to respond to changes in the market or to new opportunities because of their size and investments in their existing operations
- A small business can be more productively and dynamically efficient than large firms because they are often more flexible and responsive to market changes. They have lower overhead costs, less bureaucratic decision-making processes, and can quickly change their production processes to meet the needs of customers
- A smaller business might be more allocatively efficient ( $P=MC$ ). A business in perfect competition has to take the market price where  $P=MC=AC=AR=MR$  therefore are allocatively efficient because of their lack of price setting ability. A larger business has price setting ability and can set at a price above MC



| Level   | Mark | Descriptor                                                                                                                                                                                                                 |
|---------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | 0    | No evaluative comments.                                                                                                                                                                                                    |
| Level 1 | 1–3  | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                                                             |
| Level 2 | 4–6  | Evidence of evaluation of alternative approaches.<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.                                                |
| Level 3 | 7–8  | Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |



| Question Number | Quantitative skills assessed                                                                      | Answer                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mark |
|-----------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1               | –                                                                                                 | <p><b>The only correct answer is B</b></p> <p><i>A is not correct because they are in the same industry</i></p> <p><i>C is not correct because they are at the same stage of the production process</i></p> <p><i>D is not correct because they are at the same stage of the production process</i></p>                                                                                                                                                          | (1)  |
| 2               | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <p><b>The only correct answer is D</b></p> <p><i>A is not correct because the firm is able to cover its average variable costs</i></p> <p><i>B is not correct because the firm has not covered its's average total costs</i></p> <p><i>C is not correct because the firm can cover average total costs and make normal profit</i></p>                                                                                                                            | (1)  |
| 3               | QS8: Make calculations of elasticity and interpret the result.                                    | <p><b>The only correct answer is A</b></p> <p><i>B is not correct because this would imply that the supply of aerospace engineers is elastic</i></p> <p><i>C is not correct because an increase in government support into training programmes would make the supply of labour more elastic</i></p> <p><i>D is not correct because a fall in the demand for aerospace products would impact the demand for labour not the elasticity of supply of labour</i></p> | (1)  |

|   |                                                                                                                                                                                                |                                                                                                                                                                                                                                                                               |     |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|   | graphical, tabular and numerical forms.                                                                                                                                                        | A is incorrect because this is the difference in the wage rates<br>B is incorrect because this is the additional \$20 paid for 41 workers<br>D is incorrect because this is the total cost of wages                                                                           |     |
| 5 | <p><b>QS4: Construct and interpret a range of standard graphical forms</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> | <p><b>The only correct answer is D</b></p> <p>A is incorrect because the firm would be making supernormal profits<br/>B is incorrect because this is the long-run shut-down position<br/>C is incorrect because the firm will continue to operate in the short-run</p>        | (1) |
| 6 | <p><b>QS4: Construct and interpret a range of standard graphical forms</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> | <p><b>The only correct answer is B</b></p> <p>A is incorrect because this occurs where <math>MR=0</math><br/>C is incorrect because this occurs where <math>MC=MR</math><br/>D is incorrect because this occurs between profit maximisation and sales volume maximisation</p> | (1) |

|   |                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                   |     |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|   |                                                                                                                                                                                                | <p>C is incorrect because the revenue curves would be perfectly elastic</p> <p>D is incorrect because the firm is making normal profit</p>                                                                                                                                                                                                        |     |
| 5 | <p><b>QS4: Construct and interpret a range of standard graphical forms</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> | <p><b>The only correct answer is D</b></p> <p>A is incorrect because the firm is likely to increase employment</p> <p>B is incorrect because the price would be lower than at the profit maximising output</p> <p>C is incorrect because total fixed costs would not fall when output increases</p>                                               | (1) |
| 6 | <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p>                                                                                | <p><b>The only correct answer is A</b></p> <p>B is incorrect because high wage rates would affect the price elasticity of supply of labour</p> <p>C is incorrect because if the demand for labour is elastic then the demand for the product will be elastic</p> <p>D is incorrect because this would discourage firms from employing workers</p> | (1) |

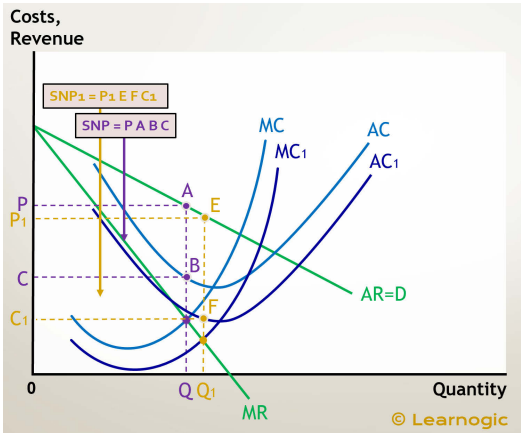
## Section A

| Question | Quantitative skills assessed                                                                                                                                          | Answer                                                                                                                                                                                                                                                                                                                                    | Mark |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                     | <b>The only correct answer is D</b><br><br>A is incorrect because this is impacted by the demand for labour<br>B is incorrect because the rate of unemployment should fall<br>C is incorrect because an increase in immigration would increase the population                                                                             | (1)  |
| 2        | QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms                                                                      | <b>The only correct answer is B</b><br><br>A is incorrect because high legal costs reduce contestability<br>C is incorrect because patent protection would reduce contestability<br>D is incorrect because regulatory capture is a form of government failure                                                                             | (1)  |
| 3        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <b>The only correct answer is A</b><br><br>B is incorrect because there can only be super-normal profits in the short-run<br>C is incorrect because it is not operating at the MES<br>D is incorrect because price is not equal to marginal cost                                                                                          | (1)  |
| 4        | QS4: Construct and interpret a range of standard graphical forms<br>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | <b>The only correct answer is C</b><br><br>A is incorrect because higher rent would cause supernormal profits to decrease<br>B is incorrect because higher rent would cause supernormal profits to decrease but the price remains constant<br>D is incorrect because the supernormal profit would decrease and the price remains constant | (1)  |

## Section A

| Question | Quantitative skills assessed                                                                                                                                                                                                                                   | Answer                                                                                                                                                                                                                                                                                                  | Mark       |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>1</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                            | The only correct answer is A<br><br>B is incorrect because this is the lowest point on the AC curve<br>C is incorrect because this is where change in TC is constant<br>D is incorrect because this is the equilibrium for revenue maximisation                                                         | <b>(1)</b> |
| <b>2</b> | <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                                                                                                       | The only correct answer is C<br><br>A is incorrect because Sony and Honda are two different companies<br>B is incorrect because they are privately owned companies<br>D is incorrect because the two companies are at different stages of production in different markets                               | <b>(1)</b> |
| <b>3</b> | <b>QS8:</b> Make calculations of elasticity and interpret the result<br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.                                                                               | The only correct answer is D<br><br>A is incorrect because the demand for labour would be elastic<br>B is incorrect because this impacts the elasticity of supply of labour<br>C is incorrect because this impacts the elasticity of supply of labour                                                   | <b>(1)</b> |
| <b>4</b> | <b>QS4:</b> Construct and interpret a range of standard graphical forms<br><b>QS6:</b> Calculate cost, revenue and profit (marginal, average, totals) <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms. | The only correct answer is B A is incorrect because the firm would shut down in the short-run<br>C is incorrect because the firm is covering ATC and therefore would not shut down in the long-run<br>D is incorrect because the firm is covering ATC and therefore would not shut down in the long-run | <b>(1)</b> |

| Question | With reference to Extract A (line 12), explain what is meant by 'short-run shutdown point.'<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mark       |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 7(b)     | <p><b>Knowledge 2 Application 2</b></p> <p><b>Quantitative skills assessed: QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge:</b> up to 2 marks for any two of the following:</p> <ul style="list-style-type: none"> <li>• Shut down point occurs where <math>AR=AVC</math> <b>(1)</b></li> <li>• In the short-run a firm may shutdown if the price it receives does not cover its average variable costs of production <b>(1)</b></li> <li>• Where <math>AVC&gt;AR</math> then each additional item sold adds to losses <b>(1)</b></li> <li>• Understanding of short-run (at least one fixed factor of production) <b>(1)</b></li> <li>• Examples of variable costs <b>(1)</b></li> </ul> <p><b>Or</b> Accurate diagram to clearly show short-run shutdown <b>(1+1)</b></p> <p><b>Application - up to 2 marks for application to context of the coffee market</b></p> <ul style="list-style-type: none"> <li>• Supply of coffee beans greater than demand/ surplus 4 million bags/global production <b>(1)</b></li> <li>• By May 2019, the global price of coffee beans fell to its lowest level in over 10 years <b>(1)</b></li> <li>• Caused serious problems for small coffee growers in coffee-producing regions/Central America/Africa <b>(1)</b></li> <li>• Farmers in Africa and Central America were making large losses <b>(1)</b></li> </ul> | <b>(4)</b> |

| Question Number | With reference to Extract A, examine the likely effects of the Chinese Government's subsidy on the profits of an electric car manufacturer. Illustrate your answer with an appropriate diagram.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mark |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)            | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p>Quantitative skills assessed:<br/> <b>QS4:</b> Construct and interpret a range of standard graphical forms.<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> <p><b>Knowledge</b><br/> <b>Up to 2 marks for drawing a diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>• Original AR, MR, AC<sub>1</sub>, MC and profit-maximising equilibrium (1)</li> <li>• Subsidy would cause downward shift in AC and MC curves to AC<sub>1</sub> and MC<sub>1</sub> (1)</li> </ul>  <p><b>Analysis</b></p> <p><b>Up to 2 marks for explanation of impact on Chinese electric car manufacturers, e.g.:</b></p> <ul style="list-style-type: none"> <li>• Manufacturers face lower costs and if demand is unchanged then supernormal profits will increase (1)</li> <li>• Diagram showing increase in output at new MC=MR (1) with new profit area shown (1)</li> </ul> <p><b>Application</b></p> <p><b>Up to 2 marks for application to context of electric car market from Extract A e.g.:</b></p> <ul style="list-style-type: none"> <li>• Government is giving up to 90 000 yuan of subsidy per car (1)</li> <li>• To encourage more production (1)</li> <li>• Government is incentivising consumers to buy electric cars (1)</li> <li>• Explicit reference to data in diagram (1)</li> </ul> |      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <p><b>Evaluation</b></p> <p><b>Up to 2 marks for evaluative comments (1+1 or 2+0) e.g:</b></p> <ul style="list-style-type: none"> <li>• Size of subsidy as a proportion of average cost <b>(1)</b>, if it is a high proportion then profits may rise significantly <b>(1)</b></li> <li>• Subsidy may be offset by an increase in costs of producing cars <b>(1)</b> so profits may not increase <b>(1)</b></li> <li>• Magnitude of subsidy <b>(1)</b>, 90 000 Yuan is a significant amount <b>(1)</b></li> <li>• Electric car manufacturers may not pass on the full subsidy to the consumer <b>(1)</b> therefore prices may not change significantly, having a limited impact on demand and profit <b>(1)</b></li> <li>• If the demand for electric cars is inelastic, a fall in the price will cause a less than proportionate increase in quantity demanded <b>(1)</b> and, therefore, a limited impact on profits <b>(1)</b></li> <li>• Length of time subsidy is offered for <b>(1)</b></li> </ul> | <b>(8)</b> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

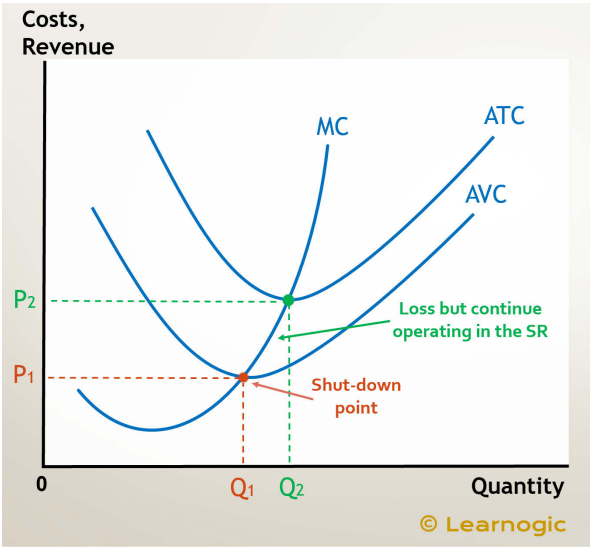
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                       |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Question Number | With reference to Extracts A and B and your own knowledge, discuss the types of non-price competition that could be used by car manufacturers to increase the sales of cars.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                       |
|                 | Indicative content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                       |
| 7(e)            | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p>Quantitative skills assessed:<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>• Non-price competition involves ways to increase sales and attract custom through methods other than price</li> <li>• Methods of non-price competition include: product differentiation, advertising and branding, quality, endorsement, product placement, after sales service</li> <li>• Car manufacturers operate in an oligopolistic market with high levels of interdependence</li> <li>• Innovation and quality are important to the Chinese consumer</li> <li>• 79% of consumers plan to purchase a connected-car in the future</li> <li>• Chinese consumers are highly influenced by reputation of the firm and social media when choosing to purchase a car</li> <li>• Younger consumers are attracted to cars with a more modern design</li> <li>• Non-price competition is important as it increases demand and revenue</li> <li>• Non-price competition can increase the profits for Chinese car manufacturers</li> <li>• Number of joint-ventures able to offer product differentiation e.g. Alibaba and BMW</li> </ul> <p><b>Maximum L2 if no reference to car manufacturers</b></p> |                                                                                                                                       |
| <b>Level</b>    | <b>Mark</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Descriptor</b>                                                                                                                     |
|                 | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | No rewardable material.                                                                                                               |
| <b>Level 1</b>  | 1–3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. |

| Question | <p>With reference to Extract A, examine the impact of an increase in car sales in the USA on the profits of Stellantis.</p> <p>Illustrate your answer with an appropriate diagram.</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mark |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <div data-bbox="523 689 1187 1279"> </div> <p><b>Knowledge</b></p> <p><b>Up to 2 marks for drawing a diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>Original AR1, MR1, AC, MC with profit maximising output <b>(1)</b></li> <li>Outward shift of AR1 to AR2 and MR1 to MR2 <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for impact of the merger on the new firms profits, e.g.</p> <ul style="list-style-type: none"> <li>Original supernormal profit A B AC1 P1 <b>(1)</b></li> <li>New supernormal profit C E AC2 P2 <b>(1)</b></li> <li>The increase in revenue increases supernormal profit <b>(1)</b></li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>Following the merger/in Q1 2021 Stellantis experienced a 25% increase in revenue <b>(1)</b></li> <li>PSA will gain access to Fiat Chrysler 3 000 car showrooms <b>(1)</b></li> </ul> | (8)  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p><b>Evaluation</b></p> <p><b>Up to 2 marks for evaluative comments, e.g.:</b></p> <ul style="list-style-type: none"> <li>• Growing into new markets may be difficult to manage causing diseconomies of scale <b>(1)</b> increasing costs and reducing profits <b>(1)</b></li> <li>• Car sales growth may help achieve economies of scale (1) helping increase profits further (1)</li> <li>• The USA is only one of a number of markets for Stellantis <b>(1)</b> so profit levels could be impacted from other markets <b>(1)</b></li> <li>• Changes in costs may impact the profit levels <b>(1)</b></li> <li>• The increases in car sales may be temporary <b>(1)</b></li> </ul> |  |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| Question | <p>With reference to the information provided and your own knowledge, discuss the possible impact of the merger between PSA Group and Fiat Chrysler on workers and consumers.</p> <p><b>Indicative content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7(e)     | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <p><b>Workers</b></p> <ul style="list-style-type: none"> <li>• If factories close to reduce costs, 3000 Vauxhall workers will lose their jobs making them unemployed and decreasing their standards of living</li> <li>• Workers are highly skilled, the factory closure could cause occupational immobility of labour in the sector. This may cause long-term unemployment</li> <li>• The government may need to increase training for these workers to provide more transferable skills</li> <li>• There may not be many job opportunities for car manufacturing employees. Workers may not want to move to areas with jobs available as a result of geographical immobility of labour</li> </ul> |

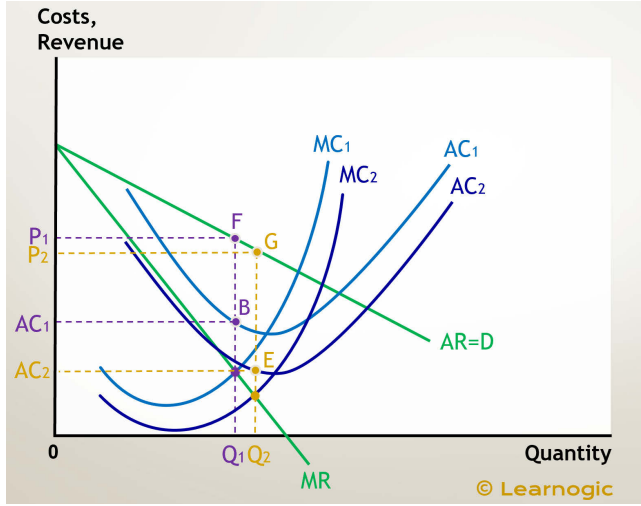
| Question | With reference to Extract A, examine <b>two</b> likely effects of the global health crisis on Amazon's profits.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed: QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, analysis and application</b></p> <p>For each of the two effects identified: 1 mark for application to Extract A, 1 analysis mark for expansion of this and 1 mark for knowledge linked to profit e.g.</p> <p>As consumers could not access physical stores <b>(1AP)</b> leading to increased demand for goods and services from Amazon <b>(1AN)</b> resulting in increased profit <b>(1K)</b></p> <p>As Amazon increased their sales to \$386.1 billion <b>(1AP)</b> due to higher demand for online shopping <b>(AN)</b> resulting in increased profit <b>(1K)</b></p> <p>Additional 400 000 workers employed by Amazon <b>(1AP)</b> this increase in number of workers employed adding to costs <b>(1AN)</b> resulting in decreased profit <b>(1K)</b></p> <p>Due to a fall in labour productivity <b>(1AP)</b> as the workforce at Amazon expanded so rapidly <b>(1AN)</b> resulting in decreased profit <b>(1K)</b></p> <p>Increase in costs of production by \$4 billion <b>(1AP)</b> reducing profit margins <b>(1AN)</b> resulting in decreased profit <b>(1K)</b></p> <p><b>Evaluation</b></p> <p><b>Up to 2 marks for evaluative comments, e.g.:</b></p> <ul style="list-style-type: none"> <li>• The effect on profit depends on the relative increase in revenues and costs. Revenues increased by \$105.6 billion whereas costs of production increased by \$4 billion <b>(1+1)</b></li> <li>• The increase in revenues may not be sustained in the long-run if the global health crisis is resolved as shops will reopen and consumers use alternatives to Amazon <b>(1+1)</b></li> <li>• The increase in revenues may not be sustained in the long-run if the global health crisis continues <b>(1+1)</b></li> <li>• With experience, staff will become more skilled, helping to improve productivity in the long-run <b>(1+1)</b></li> <li>• Amazon may substitute out labour for capital due to lower productivity helping to restore profits in the long-run <b>(1+1)</b></li> </ul> | (8)  |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b> | With reference to Extract B and your own knowledge, discuss reasons why many SMEs in South Africa shut down in 2020. Illustrate your answer with an appropriate diagram.<br><b>Indicative content</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>7(e)</b>     | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>Definition of shut-down point. <ul style="list-style-type: none"> <li>In the short-run a firm may shut down if the price it receives does not cover its average variable costs of production.</li> <li>In the long-run firms will shut down as they cannot afford to produce more output therefore cannot make enough revenue to cover average total costs.</li> </ul> </li> <li>Reasons for shut down: <ul style="list-style-type: none"> <li>Fall in demand decreasing TR and AR</li> <li>Increasing costs- ATC and AVC</li> <li>Difficulties specific to SME- e.g. lack of retained profit</li> </ul> </li> </ul>  <p>© Learnogic</p> |

| Question | <p>With reference to Figure 1 and the first paragraph of Extract B, examine <b>two</b> reasons why Deliveroo is making a loss.</p> <p>Illustrate your answer with an appropriate diagram(s).</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mark |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <div data-bbox="411 725 1161 1344"> </div> <p><b>Knowledge</b></p> <p><b>A diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>Downward sloping AR and MR <b>(1)</b></li> <li>MC=MR and loss-minimising equilibrium <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p><b>A diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>Area of loss identified <b>(1)</b></li> <li>AC above AR <b>(1)</b></li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>Loss of £298m <b>(1)</b></li> <li>Revenue was increasing but at a slower rate than the costs of production <b>(1)</b></li> <li>loss rose by £99m/ Loss rose from £199m <b>(1)</b> to £298m <b>(1)</b>/ Loss rose by 49.7% <b>(1+1)</b></li> </ul> | (8)  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <ul style="list-style-type: none"> <li>• Increase costs of production <b>(1)</b></li> <li>• Fuel costs have increased <b>(1)</b></li> <li>• In 2021 Deliveroo made a loss of £298 million <b>(1)</b></li> <li>• Marketing costs and fixed costs increased from £358.5 million in 2020 to £628.7 million in 2021 <b>(1)</b></li> <li>• High rates of inflation across Europe <b>(1)</b></li> <li>• For calculation of total costs in 2020 (£1386m) and 2021 (£2122m) <b>(1+1)</b></li> </ul> <p><b>Evaluation</b><br/> <b>Up to 2 marks for evaluative comments (1+1 or 2 + 0), e.g.:</b></p> <ul style="list-style-type: none"> <li>• The cost increase may only be in the short-run and profits may increase in the long-run <b>(1)</b> once the market has matured <b>(1)</b>/ marketing expenditure begins to fall <b>(1)</b></li> <li>• Revenue is still increasing and may increase further if real wages have risen <b>(1)</b></li> <li>• Deliveroo may reduce their costs by shutting down less profitable parts of their business <b>(1)</b> This would reduce costs and may increase profits <b>(1)</b></li> <li>• Price of fuel /rates of inflation may fall in the future <b>(1)</b></li> <li>• Significance of cost increase <b>(1)</b></li> </ul> |  |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| Question | <b>Indicative content</b><br>With reference to the information provided, discuss the strategies used by food delivery businesses to increase their market shares.<br><br>Refer to game theory analysis in your answer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7(e)     | <b>Indicative content guidance</b><br>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.<br><br><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.<br><br><b>Knowledge, Application, Analysis (8 marks) – indicative content</b><br><br>Understanding of non-price competition e.g. <ul style="list-style-type: none"> <li>• Increase in advertising: aim is to increase demand and to make demand less price elastic</li> <li>• Offering more services to consumers e.g. differentiation through deliveries of grocery shopping along with takeaway orders               <ul style="list-style-type: none"> <li>• Use of app. Making it quicker and easier for customers to order takeaways</li> </ul> </li> </ul> Understanding of price competition <ul style="list-style-type: none"> <li>• Deliveroo aims to increase market share - reference to sales volume/revenue maximisation through lowering prices</li> <li>• Reference to predatory pricing as an example of price war 'to force other competitors to leave the market'</li> <li>• Limit pricing to increase barriers to entry/forcing others to leave the market to increase market share</li> <li>• 'A price war' : suggests that there was no collusion between the businesses. Reference to game theory, with or without the diagram, to explain effect of no collusion between firms:</li> </ul> |

| Question | With reference to Extract B, examine the likely impact of a reduction in Uniqlo's costs of production on its total profits. Illustrate your answer with an appropriate diagram.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mark |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b><br/> <b>Quantitative skills assessed:</b><br/> <b>QS4:</b> Construct and interpret a range of standard graphical forms<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p>  <p><b>Knowledge</b><br/> <b>Up to 2 marks for drawing a diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>Original AR, MR, AC<sub>1</sub>, MC<sub>1</sub> and profit maximisation equilibrium (1)</li> <li>Original supernormal profit area FBAC<sub>1</sub>P<sub>1</sub> (1)</li> </ul> <p><b>Analysis</b><br/> <b>A diagram that shows knowledge of:</b></p> <ul style="list-style-type: none"> <li>Decrease in variable cost would cause downward shift in MC and AC curves to MC<sub>2</sub> and AC<sub>2</sub> (1)</li> <li>New higher quantity, lower price and increased supernormal profit identified GEAC<sub>2</sub>P<sub>2</sub> (1)</li> </ul> <p><b>Application</b><br/> <b>Up to 2 marks for application to Extract B:</b></p> <ul style="list-style-type: none"> <li>Uniqlo hopes to negotiate favourable deals with suppliers of cotton and dyes (1)</li> <li>Uniqlo will invest in technology and automation to replace workers (1)</li> </ul> | (8)  |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <b>Evaluation</b><br><b>Up to 2 marks for evaluative comments (1+1 or 2 + 0), e.g.:</b> <ul style="list-style-type: none"> <li>To attract highly skilled labour Uniqlo has had to increase wages by 40% <b>(1)</b> This will increase MC and AC reducing profits <b>(1)</b></li> <li>It is costly to invest in technology and automation <b>(1)</b></li> <li>Global raw material costs are rising <b>(1)</b></li> <li>Significance of cost increase <b>(1)</b></li> <li>It takes time to implement new technology <b>(1)</b></li> </ul> |  |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| Question    | Indicative content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | With reference to Extract C, Figure 2 and your own knowledge, discuss the likely barriers to entry for a business wishing to enter the global fashion retail market.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>7(e)</b> | <b>Indicative content guidance</b><br><p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>Barriers to entry are any obstacle that makes it difficult for new firms to enter and compete in the fashion retail market</li> <li>Barriers to entry can limit the entry of new competitors, reducing market competition and potentially enabling existing firms to maintain higher prices or market shares</li> <li>Large firms are well-established, making them hard to compete with. Zara is the largest global retailer followed by Uniqlo. These brands have a high degree of brand loyalty</li> <li>Uniqlo, H&amp;M and Zara all offer low prices making it harder for new firms to compete and make a profit</li> <li>The businesses have significant bargaining power over their suppliers enabling them to achieve economies of scale and reduce their average costs</li> <li>The profits made in the fashion retail industry can be invested into market research and innovative design enabling these businesses to offer higher quality goods hence increasing the costs for new businesses entering the market</li> <li>Businesses such as Zara and Uniqlo have a high market value. They are able to access funds for large amounts of investment</li> <li>The businesses compete in stores that are costly to open and run</li> </ul> |

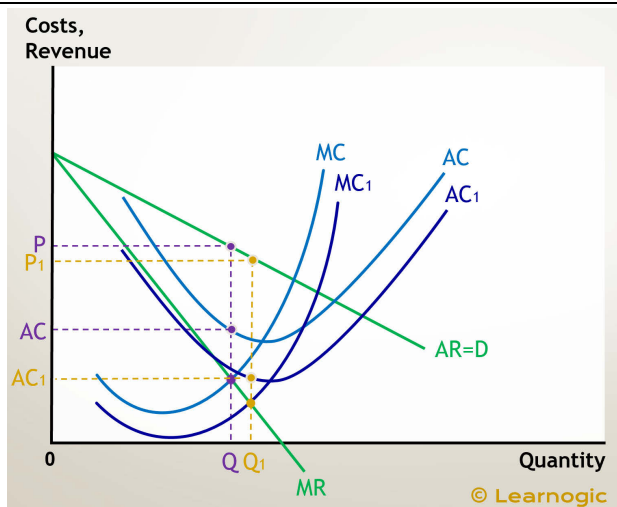
| Question | <p>With reference to the last paragraph of Extract B, examine the impact of the increase in fixed costs on AstraZeneca's profit.</p> <p>Illustrate your answer with an appropriate diagram(s).</p> <p><b>Answer</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mark |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge</b></p> <div data-bbox="466 712 1150 1368"> </div> <p><b>Up to 2 marks for drawing a diagram that shows:</b></p> <ul style="list-style-type: none"> <li>• Original AR, MR, AC, MC and profit maximisation equilibrium <b>(1)</b></li> <li>• Area of initial supernormal profit identified (PACE) <b>(1)</b></li> </ul> <p><b>Analysis</b></p> <p>Up to 2 marks for showing:</p> <ul style="list-style-type: none"> <li>• Increase in <b>only</b> AC to AC<sub>1</sub> <b>(1)</b></li> <li>• New area of supernormal profit (PABF) having <b>only</b> shifted AC <b>(1)</b></li> </ul> <p><b>NB The new area may be shown as a loss</b></p> <p><b>NB If AC and MC are both shifted do not award Analysis marks</b></p> <p><b>Application</b></p> <p>Up to 2 marks for reference to Extract B:</p> |      |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|  | <ul style="list-style-type: none"> <li>The fixed costs associated with complying with these regulations have increased significantly <b>(1)</b></li> <li>The regulatory environment is complex <b>(1)</b></li> <li>All pharmaceuticals must undergo clinical trials before medicines can be approved <b>(1)</b></li> </ul> <p><b>Evaluation</b><br/> <b>Up to 2 marks for evaluative comments (1+1 or 2 + 0), e.g.:</b></p> <ul style="list-style-type: none"> <li>These costs could be offset <b>(1)</b> by the other cost saving through external economies of scale <b>(1)</b></li> <li>If revenues increase through higher sales <b>(1)</b> profits may not decrease <b>(1)</b></li> <li>It depends on how much the regulation costs are as a proportion of total costs <b>(1)</b></li> <li>Efficiency improvements may decrease costs of production <b>(1)</b></li> <li>The fixed costs increase may be short-run but in the long-run the company may adapt to lower these costs <b>(1+1)</b></li> </ul> | <b>(8)</b> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|

| Question | <p>With reference to the information provided and your own knowledge, discuss the likely barriers that might prevent a new company from entering the pharmaceutical industry.</p> <p>Indicative content</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7(e)     | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <p>Barriers to entry are factors that make it difficult or expensive for new companies to enter an industry to compete profitably with existing companies.</p> <ul style="list-style-type: none"> <li>• High R&amp;D costs: Developing new medicines involves extensive research and clinical trials, might spend up to 25% of their revenue. In 2022 Johnson &amp; Johnson spent \$14.6 bn, Roche spent \$14.8 bn and AstraZeneca spent \$9.8 bn</li> <li>• Strong competition: a number of very large firms dominating the pharmaceutical industry in Ireland, including Pfizer with global revenue of \$100.3 bn</li> <li>• Regulatory approval processes: The pharmaceutical industry is highly regulated, and the Regulatory Authority will need to approve products, making it more difficult for new firms to enter</li> <li>• Intellectual property protection: Patents provide up to 20 years legal protection in the EU, giving the established firms monopoly power over their products</li> <li>• Economies of scale: Established pharmaceutical companies benefit from economies of scale, allowing them to produce medicines at lower costs per unit. New entrants may struggle to achieve similar efficiency</li> <li>• Distribution networks: Established companies have well-developed channels for distributing and marketing their products, while new entrants may face challenges in establishing such networks</li> <li>• Complexity of medicine development: This involves large amounts of industry knowledge and may deter new entrants that lack experience and expertise</li> <li>• Pricing strategies e.g. limit pricing or predatory pricing may deter new entrants</li> <li>• High number of mergers, acquisitions and collaborations between incumbent firms</li> <li>• High sunk costs, e.g. advertising and promotion, that are irrecoverable when leaving the pharmaceutical industry may discourage new entrants</li> </ul> |

| Question | With reference to Figure 1, Extract A and Extract B, examine <b>two</b> reasons why some bicycle retailers were forced to close.<br><b>Answer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mark |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 7(d)     | <p><b>Knowledge 2 Application 2 Analysis 2 Evaluation 2</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge and Analysis:</b><br/>Up to 2 knowledge marks for identifying two reasons and 2 analysis marks for linked expansion e.g.:</p> <ul style="list-style-type: none"> <li>• Decrease in consumer demand/falling revenues <b>(1K)</b> causing losses to be made (this could be shown by a relevant diagram) <b>(1AN)</b></li> <li>• High inflation rates/increased costs <b>(1K)</b> resulting in revenues lower than costs (this could be shown by a relevant diagram) <b>(1AN)</b></li> <li>• Challenge of online shopping <b>(1K)</b> with many small retailers unable to compete <b>(1AN)</b></li> <li>• Increasing dominance of larger retailers <b>(1K)</b> who have lower average costs/benefit from economies of scale/greater X-efficiency <b>(1AN)</b></li> <li>• Excess supply of bicycles causing a fall in price <b>(1K)</b> meant that many small retailers were unable to compete <b>(1AN)</b></li> <li>• Price/non-price competition <b>(1K)</b> forcing small firms out of business <b>(1AN)</b></li> </ul> <p><b>Application:</b><br/>Up to 2 marks for reference to Figure 1, Extract A or Extract B:</p> <ul style="list-style-type: none"> <li>• Sales of bicycles fell from, e.g.: 3.51 million in 2015/3.30 million in 2020 to 1.87 million in 2023 <b>(1)</b>/reduced by 43.3%/1.43m between 2020 and 2023 <b>(2)</b></li> <li>• In 2023 sales were at their lowest in over 10 years <b>(1)</b></li> <li>• As the global health crisis eased, people started returning to using old routines/other methods of transport e.g.: car, bus, train <b>(1)</b></li> <li>• Investment by large businesses in advertising and branding/offering online discounts <b>(1)</b></li> </ul> <p><b>Evaluation:</b><br/>Up to 2 marks for evaluative comments (1+1 or 2+0), e.g.:</p> <ul style="list-style-type: none"> <li>• This was a decrease of only 2.1% compared with 2022 <b>(1)</b> so most bicycle retailers were not forced to close <b>(1)</b></li> <li>• Despite the overall downturn, sales of e-bikes increased in 2023 <b>(1)</b> so retailers specialising in e-bikes will benefit from an increase in demand <b>(1)</b></li> <li>• A 12% increase in bicycle sales was forecast for 2024 <b>(1)</b> because consumer spending is likely to increase and retailers are reducing prices <b>(1)</b></li> <li>• Short-run/long run implications <b>(1)</b></li> </ul> | (8)  |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b> | <p>With reference to the information provided, discuss the reasons for the increase in Starbucks' profits in 2019.</p> <p>For <b>one</b> of these reasons, illustrate your answer with an appropriate cost and revenue diagram.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>7(e)</b>     | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>• Definition of profits = total revenue - total costs</li> <li>• Starbucks revenue increased by 7.24% in 2019</li> <li>• Starbucks profits increased by 7.11% to \$17.98 billion</li> <li>• Globally sales of coffees have increased by 2%, this would increase both the average revenue and marginal revenue curves outwards, increasing profits</li> <li>• Many new shops opening in China</li> <li>• Attracting younger coffee drinkers</li> <li>• Diagram to show an increase in both average revenue and marginal revenue shifting outwards with a new equilibrium price and quantity showing profit increasing</li> </ul> <div data-bbox="580 1153 1187 1693"> </div> <ul style="list-style-type: none"> <li>• AR and MR increase to AR2 MR2 with a higher area of profit from <math>P_1C_1 \times Q_1</math> to <math>P_2C_2 \times Q_2</math></li> <li>• The price of coffee beans has fallen to \$1.57 per kg in May 2019 reducing the costs of production for coffee shops. This would cause the marginal cost and average costs curve to fall, increasing profits</li> </ul> |



The fall in the price of coffee beans causes the MC and AC to fall, creating a higher output at a lower price. Profit increases from  $PAC \times 0Q$  to  $P_1AC_1 \times 0Q_1$

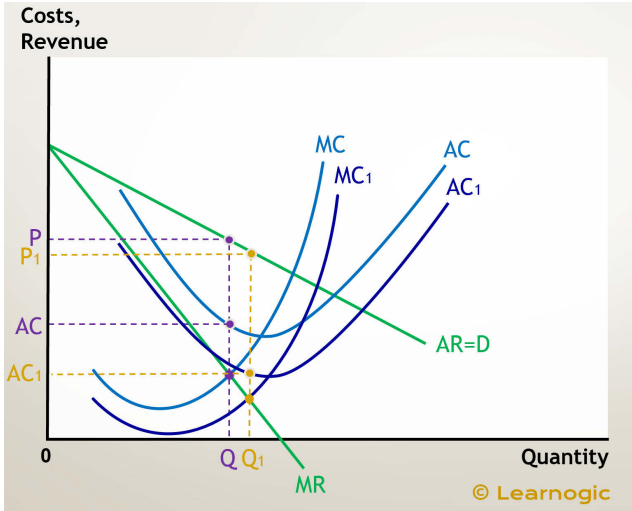
**Maximum level 2 if no diagram**

**Maximum level 2 if only one reason is discussed**

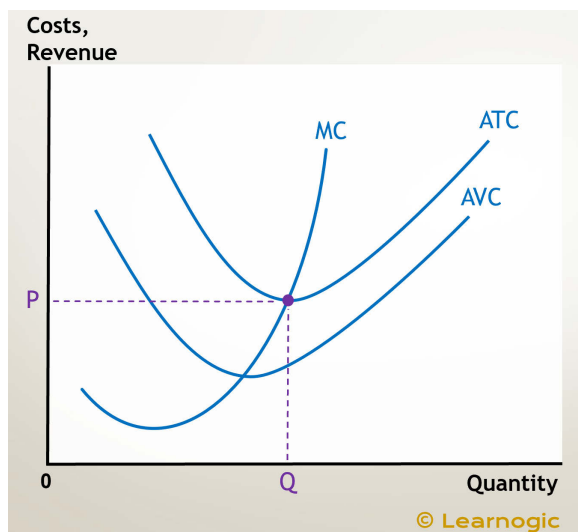
| Level          | Mark | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0    | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Level 1</b> | 1–3  | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                         |
| <b>Level 2</b> | 4–6  | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.                                             |
| <b>Level 3</b> | 7–8  | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |

|                | <b>Evaluation (6 marks) – indicative content</b> <ul style="list-style-type: none"> <li>• The price of coffee beans fluctuates and costs may increase in the long-run reducing profits</li> <li>• Other costs of production may increase offsetting the fall in costs from the reduction in the price coffee beans, reducing overall profits</li> <li>• Costs of advertising and expansion will reduce overall profits</li> <li>• A large number of firms competing in the coffee shop market which may reduce sales and revenue in the long-run</li> <li>• A 32% fall in price of coffee beans is very large and might have had a significant impact on profits</li> <li>• The impact of the fall in the price of coffee beans on Starbucks' profits depends on the significance of coffee beans as a proportion of total costs</li> <li>• The rise in profits might be short-term only</li> </ul> |                                                                                                                                                                                          |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Descriptor                                                                                                                                                                               |
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No rewardable material.                                                                                                                                                                  |
| <b>Level 1</b> | 1–2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                           |
| <b>Level 2</b> | 3–4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Evidence of evaluation of alternative approaches<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.               |
| <b>Level 3</b> | 5–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Evaluation recognises different viewpoints and/or is critical of the evidence.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |

## Section C

| Question | <p>For an industry of your choice, evaluate why many businesses have growth as their main objective.<br/>Illustrate your answer with an appropriate diagram(s).<br/><b>Indicative content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8        | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (12 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>• Businesses can grow either organically or inorganically through mergers and takeovers</li> <li>• Business objectives goals/targets for business including profit maximisation, revenue maximisation, sales maximisation and satisficing</li> <li>• Increase in demand leading to higher revenue and profits/higher profits generates more funds for investment, improves innovation, further increasing profits</li> <li>• Businesses such as Visinema would benefit from having more control over every aspect of their business allowing them to expand into new areas such as animated films</li> <li>• Businesses may benefit from increased profits by internalising new areas of the business that they previously outsourced. This reduces costs and increases profits. Fall in AC to AC<sub>1</sub> and MC to MC<sub>1</sub> showing a new equilibrium with a higher profit level <math>P_1 \times Q_1</math> (TR) - AC<sub>1</sub> <math>\times</math> Q<sub>1</sub> (TC)</li> </ul>  <p>© Learnogic</p> |

- Many SMEs are not receiving enough revenue to cover their variable costs. If this happens the firms will need to shut down in the short-run
- Diagram showing short-run price below AVC curve  $0-P_1$  and shut down output  $0-Q_1$
- The survey showed that small enterprises were 26 times more likely to close than larger enterprises
- SMEs required R1.1 trillion of government financial support if they were to have any chance of not shutting down in 2021



- When price is below ATC, the business would shut down in the long-run
- Reward diagrams that shift AR/MR appropriately

**NB A diagram is required to achieve Level 3**

| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Level 1</b> | 1–3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                         |
| <b>Level 2</b> | 4–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Chains of reasoning in terms of cause and/or consequence are evident, but they may not be developed fully, or some stages are omitted.                                           |
| <b>Level 3</b> | 7–8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |
|                | <b>Evaluation (6 marks) – indicative content</b> <ul style="list-style-type: none"> <li>• Not all firms were negatively impacted, essential services either increased profits or profits stayed the same</li> <li>• 64% of the enterprises that were closed indicated that they expected to reopen</li> <li>• If the R1.1 trillion of government financial support by the government is provided, enterprises would survive</li> <li>• 70% of enterprises reported that they cut back on business spending and possibly were able to survive by lowering costs</li> <li>• Half of medium-size enterprises were able to either close parts of their business or reduce capacity to decrease costs and prevent having to shut down</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Level   | Mark | Descriptor                                                                                                                                                                               |
|---------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | 0    | No rewardable material.                                                                                                                                                                  |
| Level 1 | 1–2  | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                           |
| Level 2 | 3–4  | Evidence of evaluation of alternative approaches<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially developed chain of reasoning.               |
| Level 3 | 5–6  | Evaluation recognises different viewpoints and/or is critical of the evidence.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |

## Section C

| Question | <p>Evaluate the benefits of growth by merger.<br/>Illustrate your answer with an appropriate diagram(s).<br/><b>Indicative content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8        | <p><b>Indicative content guidance</b></p> <p><b>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</b></p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4: Construct and interpret a range of standard graphical forms.</b></p> <p><b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> <p><b>Knowledge, Application, Analysis (12 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>• Definition of merger: joining of two or more firms to form one organisation</li> <li>• Businesses such as PhotonLens and Shadow Creator would benefit from sharing resources, human capital, and expertise, to enable them to develop new products more quickly</li> <li>• Growth by merger enables businesses such as PhotonLens and Shadow Creator to enter new markets that they do not operate in such as moving from VR glasses into the software needed for these to work. This allows these firms to diversify and benefit from risk bearing economies of scale</li> <li>• Mergers increase market share more quickly than organic growth. This would increase sales, revenue, and profits</li> <li>• Businesses may benefit from increased profits through economies of scale if the merger allows production to rise and costs to fall. PhotonLens and Shadow Creator may be able to share development and innovation costs, reducing overall costs and increases profits</li> <li>• Firms may merge to guarantee supplies/lower costs of supplies (backward vertical integration)</li> <li>• Firms may merge to increase market share</li> <li>• Firms may merge to become more competitive</li> <li>• Firms may merge to eliminate competitors (horizontal integration)</li> <li>• Businesses can benefit from economies of scale and a fall in long-run average total costs. Long-run average total costs fall as output rises. Reducing costs and reaching the MES, improving productive efficiency</li> </ul> |

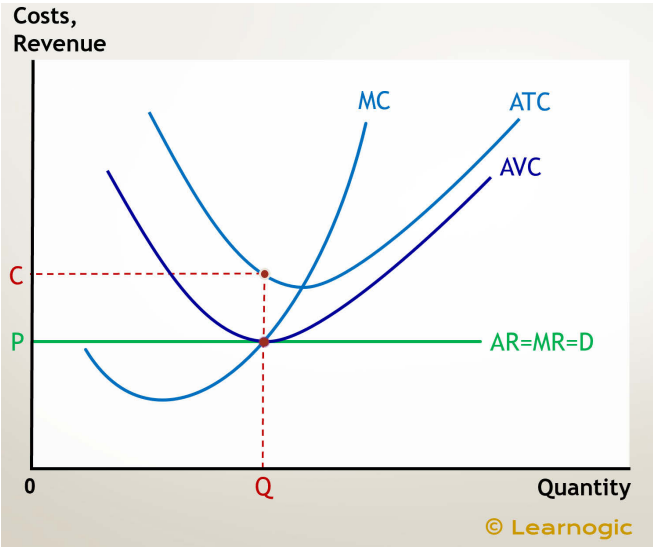
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b> | <p>With reference to Extract C, discuss methods that Halfords could use to increase its profitability.<br/>Illustrate your answer with a costs and revenues diagram.</p> <p><b>Indictive content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>7(e)</b>     | <p><b>Indictive content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>Knowledge, Application, Analysis (8 marks) – indicative content</b></p> <ul style="list-style-type: none"> <li>• Definition of profit: revenue - costs</li> <li>• Focus on the servicing business which is less affected by economic downturns. This is likely to ensure that revenues do not fluctuate as much</li> <li>• Invest in its online presence to reach more consumers: building awareness would encourage new demand. This is likely to increase revenue and boost market share</li> <li>• Increase its price competitiveness: this would make it harder for other retailers to compete and increase sales for Halfords</li> <li>• Expand its e-bike and e-scooter business which are growth areas. Further investment/research and development may increase demand and sales for its products</li> <li>• Increase in revenue shown on a diagram with an outward shift in marginal revenue (MR<sub>1</sub>-MR<sub>2</sub>) and average revenue curves (AR<sub>1</sub>-AR<sub>2</sub>), increasing supernormal profit from WP<sub>1</sub>UV to TP<sub>2</sub>RS</li> <li>• Also accept a relevant diagram showing a reduction in costs</li> </ul> <div data-bbox="555 1240 1082 1688"> </div> <p><b>NB: Maximum level two if no costs and revenues diagram included</b></p> <p><b>NB: Maximum level two if only one method is discussed</b></p> |

| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Level 1</b> | 1–3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                         |
| <b>Level 2</b> | 4–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.                                             |
| <b>Level 3</b> | 7–8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |
|                | <b>Evaluation (6 marks) – indicative content</b> <ul style="list-style-type: none"> <li>• External influences such as government policy/poor weather conditions/inflation cannot be controlled so it may be difficult to increase revenue</li> <li>• It depends on how rivals react to Halfords: there is a lot of competition in the market and other businesses may also reduce prices and increase online competition</li> <li>• It may be difficult to increase profitability with the rise of minimum wages by 10%</li> <li>• It may be difficult to increase profitability with a significant increase in transport costs</li> <li>• Increasing advertising increases costs for the business so profits may not rise</li> <li>• The shift into the e-bike market may increase costs for the business</li> <li>• Lowering prices depends on the PED for bicycles - if they are price inelastic then revenue will fall</li> <li>• Time lag: it may take time for methods to increase profitability</li> <li>• The success of these methods will depend on how much Halfords spends in order to increase sales</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Level 1</b> | 1–2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                                                                                                                                                                                                                                                                                          |
| <b>Level 2</b> | 3–4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Evidence of evaluation of alternative approaches<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.                                                                                                                                                                                                                                                                              |
| <b>Level 3</b> | 5–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Evaluation recognises different viewpoints and/or is critical of the evidence.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning.                                                                                                                                                                                                                                                                |



## Section C

| Question | <p>Evaluate measures that a government can use to protect employees and suppliers in a product market of your choice.</p> <p>Illustrate your answer with an appropriate diagram(s).</p> <p><b>Indicative content</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8        | <p><b>Indicative content guidance</b><br/> <b>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</b></p> <p><b>Quantitative skills assessed:</b><br/> <b>QS4: Construct and interpret a range of standard graphical forms.</b><br/> <b>QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</b></p> <p><b>Policies to protect employees e.g.:</b></p> <ul style="list-style-type: none"> <li>• Restrictions on the monopsony power of TNCs buying cocoa by promoting trade unions to bargain for higher wages and better working conditions</li> <li>• Employment regulations e.g.: maximum working hours, health and safety regulations. These can protect workers from exploitation and ensures that they are treated fairly</li> <li>• Minimum wage: can prevent employers from exploiting workers by offering wages lower (<math>W_1</math>) than those in a perfectly competitive market</li> </ul> <div data-bbox="678 1137 1066 1496" data-label="Figure"> <p style="text-align: right;">© Learnogic</p> </div> <ul style="list-style-type: none"> <li>• Nationalisation: can ensure that employees are paid fairly by the business as the government will set the price/wage. This can be a higher level than in the free market as the government is not trying to achieve a profit maximisation objective</li> <li>• Fund training schemes so that workers are able to be more occupationally mobile</li> </ul> <p><b>Policies to protect suppliers e.g.:</b></p> <ul style="list-style-type: none"> <li>• Ensures that local producers are protected from more competitive foreign suppliers. This enables producers to survive and jobs to be protected</li> <li>• Impose fines for the exploitation of market power: this increases the costs of exploitation and prevents businesses from abusing their power</li> <li>• Barriers to entry of foreign firms</li> <li>• Regulation/imposition of a cap on profits of the TNC</li> <li>• Minimum price guarantees/Fairtrade schemes</li> </ul> |

| Question Number | Indicative content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9               | <p><b>Indicative content guidance</b><br/>           Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Quantitative skills assessed</b><br/> <b>QS4:</b> Construct and interpret a range of standard graphical forms.<br/> <b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, application, analysis (12 marks) – indicative content</b></p> <p>Costs of production - include total, average and marginal cost</p> <p>Short-run shut down point is where average revenue equals average variable costs</p> <p>Long-run shut down point occurs where average revenue is below average cost</p> <p>Firms will continue to operate where average revenue is greater than or equal to average variable cost in the short-run</p> <p>Can show using monopoly (monopolistic competition) diagram showing loss</p> <p>In the short-run this firm can survive if it just covers its average variable cost</p> <p><b>Perfect competition diagram</b></p>  |

In the short-run this firm can still continue production as it just covers its AVC at a price of OP

If price is below AVC the firm will shut down

### **Long Run**

In the long-run if AR is below ATC then the firm will shut down (the firm is making a loss or earning less than its normal profit  $AR < AC$ ). Shut-down point is any price and output resulting in less than normal profit

For perfect competition & monopolistic competition, firms would need to profit maximise ( $MC = MR$ ) in the long-run to avoid losses

Monopoly & oligopoly - firms can survive in the long-run without necessarily maximising profit

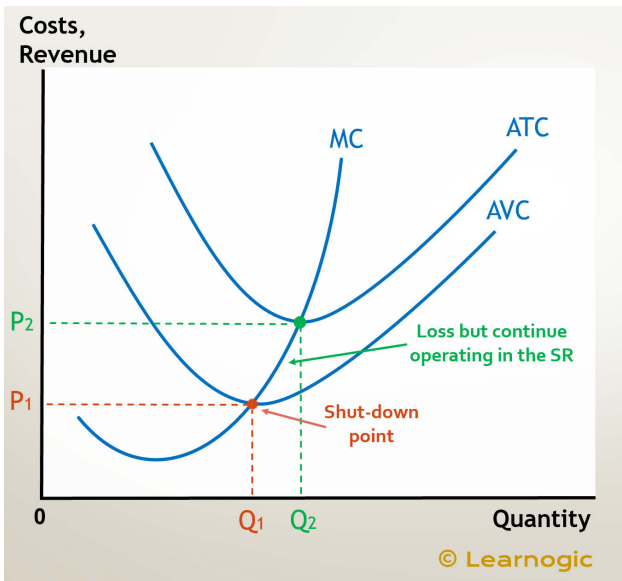
**NB if no diagram candidate can achieve a maximum of Level 3.**

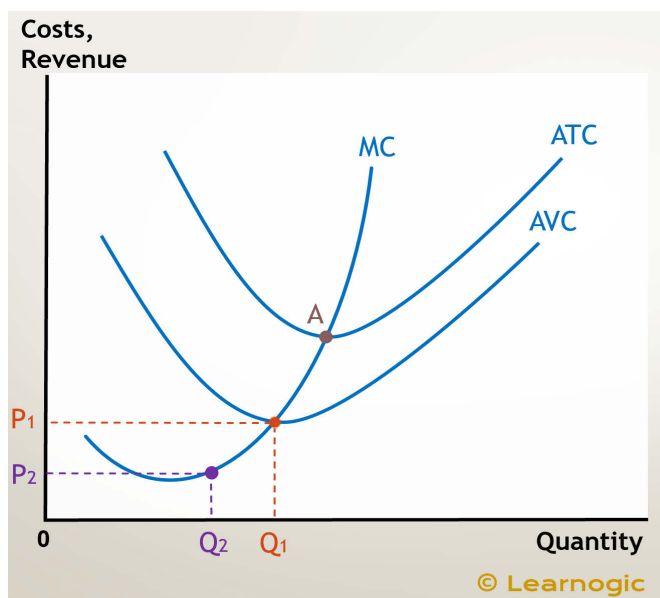
**NB if no industry referred to candidate can achieve a maximum of Level 3**

| Level          | Mark  | Descriptor                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0     | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Level 1</b> | 1–3   | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning.                                                                                                                                                                            |
| <b>Level 2</b> | 4–6   | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Limited application of knowledge and understanding to economic problems in context.<br>A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.                                                                                                                                        |
| <b>Level 3</b> | 7–9   | Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.               |
| <b>Level 4</b> | 10–12 | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |

|                | <b>Evaluation (8 marks) – indicative content</b> <ul style="list-style-type: none"> <li>• The firm may be pursuing predatory pricing therefore continue producing whilst making a loss until other firms leave the market</li> <li>• The firm may be cross subsidising the product, and cover losses with profits from sales of other goods</li> <li>• If the firm is able to reduce costs/increase revenue it will be able to survive in the long run</li> <li>• Public sector firms are able to run at a loss as there is no profit incentive</li> <li>• A start up firm may not have a profit incentive in the short run and will accept losses as its objective is survival</li> <li>• A firm may be able to survive if it has large cash reserves</li> <li>• Airlines may continue to operate with the help of financial supports from governments</li> <li>• During 2020 many firms experienced financial losses and were able to continue to operate</li> </ul> |                                                                                                                                                                                                                            |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level          | Mark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Descriptor                                                                                                                                                                                                                 |
|                | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | No rewardable material.                                                                                                                                                                                                    |
| <b>Level 1</b> | 1–3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                                                             |
| <b>Level 2</b> | 4–6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Evidence of evaluation of alternative approaches.<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.                                                |
| <b>Level 3</b> | 7–8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.<br>Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |

## Section C

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Question</b> | <p>Evaluate the view that a business will always shut down if it is not able to make a normal profit.</p> <p>Illustrate your answer with an appropriate diagram(s).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                 | <b>Indicative content</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>8</b>        | <p><b>Indicative content guidance</b></p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p><b>Quantitative skills assessed:</b></p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (12 marks) – indicative content</b></p> <p>Indicative content</p> <p><b>Short-run shut down point</b></p>  <p>© Learnogic</p> <ul style="list-style-type: none"> <li>In the short-run Toys "R" Us would continue to operate even if it is making a loss as long as it is covering its average variable costs. At any point below this the business must shut down because it is not able to cover its variable costs of production.</li> </ul> |

**Long-run shut-down point**

- In the long-run a business such as Toys "R" Us will keep producing at point A, as it is able to cover its average total costs. This includes its opportunity cost. The business would shut down at a price and output below this because it cannot cover its total costs of production. For example, in 2018 as Toys "R" Us couldn't cover its costs and so it was forced to close down.
- Resources employed in the output of toys could be better invested in the production of other goods and services
- In the short-run the market mechanism allows average revenues to increase if less efficient firms leave the market so the incumbent firms can achieve normal profit in the long run

**NB if no diagram candidate can achieve a maximum of level 3**

**NB also accept imperfectly competitive market**

| Level          | Mark | Descriptor                                                                                                                                                                                                                                                                      |
|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | 0    | No rewardable material.                                                                                                                                                                                                                                                         |
| <b>Level 1</b> | 1–3  | Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Use of generic material or irrelevant information or inappropriate examples.<br>Descriptive approach which has no chains of reasoning. |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Level 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4–6         | Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Limited application of knowledge and understanding to economic problems in context.<br>A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.                                                                                                                                        |
| <b>Level 3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7–9         | Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.<br>Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.               |
| <b>Level 4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10–12       | Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.<br>Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question.<br>Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence. |
| <b>Evaluation (8 marks) – indicative content</b> <ul style="list-style-type: none"> <li>Objectives of businesses: if a business is establishing itself/trying to survive it may continue to operate even if it is making a loss, for example, during the global health crisis</li> <li>If it is a state-owned business/charity, the business can run at a loss</li> <li>Financial obligations that the business cannot meet if it shuts down, such as paying off debts or fulfilling contracts</li> <li>Hope of recovery from the business's current situation and return to profitability</li> <li>Loss of reputation</li> <li>Legal Requirements. For example, if the business is in the middle of a project that it is contractually obligated to complete, it may need to stay open until the project is finished</li> <li>The business might survive if it acquired by another business</li> <li>The business might survive if the government provides a subsidy</li> <li>A business might survive if it is part of a large conglomerate and there is cross subsidisation</li> </ul> |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Level</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Mark</b> | <b>Descriptor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0           | No rewardable material.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Level 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1–3         | Identification of generic evaluative comments.<br>No supporting evidence/reference to context.<br>No evidence of a logical chain of reasoning.                                                                                                                                                                                                                                                                                                             |
| <b>Level 2</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4–6         | Evidence of evaluation of alternative approaches.<br>Some supporting evidence/reference to context.<br>Evaluation is supported by a partially-developed chain of reasoning.                                                                                                                                                                                                                                                                                |
| <b>Level 3</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7–8         | Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement.                                                                                                                                                                                                                                                                                                                                           |

|  |  |                                                                                                        |
|--|--|--------------------------------------------------------------------------------------------------------|
|  |  | Appropriate reference to evidence/context.<br>Evaluation is supported by a logical chain of reasoning. |
|--|--|--------------------------------------------------------------------------------------------------------|

| Question      | With reference to an industry of your choice, evaluate the likely disadvantages for a business operating in an oligopolistic market structure<br><br>Illustrate your answer with a payoff matrix diagram.<br><br><b>Indicative content</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                |                                |        |  |            |           |        |            |                               |                                |           |                                |                               |  |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------|--|------------|-----------|--------|------------|-------------------------------|--------------------------------|-----------|--------------------------------|-------------------------------|--|
| 9             | <p>Indicative content guidance</p> <p>Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.</p> <p>Quantitative skills assessed:</p> <p><b>QS4:</b> Construct and interpret a range of standard graphical forms.</p> <p><b>QS9:</b> Interpret, apply and analyse information in written, graphical, tabular and numerical forms.</p> <p><b>Knowledge, Application, Analysis (12 marks) – indicative content</b></p> <ul style="list-style-type: none"><li>• An oligopoly is a market structure in which a small number of businesses dominate the market and compete with each other, such as the commercial aircraft industry</li><li>• Each business has significant market power, meaning it can influence the market price and affect the behaviour of its competitors</li><li>• Oligopolists sell similar goods, and there are substitutes available making consumers’ demand more price elastic</li><li>• Businesses in oligopolistic markets are interdependent. If there is no collusion they would reach the low price, low price quadrant. This would limit their ability to make supernormal profits</li></ul> <div><table><tr><th colspan="2" rowspan="2">Payoff matrix</th><th colspan="2">Firm B</th></tr><tr><th>High price</th><th>Low price</th></tr><tr><th rowspan="2">Firm A</th><th>High price</th><td><div>£7m</div><div>£7m</div></td><td><div>£11m</div><div>£2m</div></td></tr><tr><th>Low price</th><td><div>£2m</div><div>£11m</div></td><td><div>£4m</div><div>£4m</div></td></tr></table><p>© Learnogic</p></div> <ul style="list-style-type: none"><li>• New businesses may find it difficult to enter/survive the market because established businesses may engage in anti-competitive practices such</li></ul> | Payoff matrix                  |                                | Firm B |  | High price | Low price | Firm A | High price | <div>£7m</div> <div>£7m</div> | <div>£11m</div> <div>£2m</div> | Low price | <div>£2m</div> <div>£11m</div> | <div>£4m</div> <div>£4m</div> |  |
| Payoff matrix |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |                                | Firm B |  |            |           |        |            |                               |                                |           |                                |                               |  |
|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | High price                     | Low price                      |        |  |            |           |        |            |                               |                                |           |                                |                               |  |
| Firm A        | High price                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <div>£7m</div> <div>£7m</div>  | <div>£11m</div> <div>£2m</div> |        |  |            |           |        |            |                               |                                |           |                                |                               |  |
|               | Low price                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <div>£2m</div> <div>£11m</div> | <div>£4m</div> <div>£4m</div>  |        |  |            |           |        |            |                               |                                |           |                                |                               |  |