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EDEXCEL A ECONOMICS: QUESTIONS BY TOPIC

Government Intervention (1.4)

A Level Economics Theme 1

90 questions · 793 marks · Mark schemes included

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HOW TO USE THIS BOOKLET

Questions are grouped by specification sub-topic and run from the lowest mark tariff to the highest within each one.
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.
Diagrams, graphs, tables and data are printed exactly as they appeared in the original papers.

	QUESTION	SOURCE	MARKS	PAGE
1.4.1	**GOVERNMENT INTERVENTION IN MARKETS**		82 Qs · 697 marks	4
1.	**Q2(a)**	AS Paper 1 June 2016	1	5
2.	**Q2(b)**	AS Paper 1 June 2016	1	6
3.	**Q3(a)**	AS Paper 1 June 2016	1	7
4.	**Q3(a)**	AS Paper 1 June 2017	1	8
5.	**Q3(b)**	AS Paper 1 June 2017	1	9
6.	**Q5(b)**	AS Paper 1 June 2017	1	10
7.	**Q4(a)**	AS Paper 1 June 2019	1	11
8.	**Q4(c)**	AS Paper 1 June 2019	1	12
9.	**Q3(a)**	AS Paper 1 October 2020	1	13
10.	**Q4(a)**	AS Paper 1 October 2020	1	14
11.	**Q5(c)**	AS Paper 1 October 2020	1	15
12.	**Q2(a)**	AS Paper 1 June 2022	1	16
13.	**Q2(b)**	AS Paper 1 June 2022	1	17
14.	**Q1(a)**	AS Paper 1 June 2023	1	18
15.	**Q1(c)**	AS Paper 1 June 2023	1	19
16.	**Q3(b)**	A Level Paper 1 June 2017	1	20
17.	**Q3(c)**	A Level Paper 1 June 2017	1	21
18.	**Q2(c)**	A Level Paper 1 June 2018	1	22
19.	**Q1(b)**	A Level Paper 1 October 2020	1	23
20.	**Q3(b)**	A Level Paper 1 October 2020	1	24
21.	**Q3(a)**	A Level Paper 1 June 2025	1	25
22.	**Q2(c)**	AS Paper 1 June 2016	2	26
23.	**Q3(c)**	AS Paper 1 June 2017	2	27
24.	**Q4(b)**	AS Paper 1 June 2019	2	28
25.	**Q5(b)**	AS Paper 1 October 2020	2	29
26.	**Q2(c)**	AS Paper 1 June 2022	2	30
27.	**Q1(b)**	AS Paper 1 June 2023	2	31
28.	**Q3(a)**	A Level Paper 1 June 2017	2	32
29.	**Q2(a)**	A Level Paper 1 June 2018	2	33
30.	**Q2(b)**	A Level Paper 1 June 2018	2	34
31.	**Q3(b)**	AS Paper 1 June 2016	3	35
32.	**Q5(a)**	AS Paper 1 June 2017	3	36

	QUESTION	SOURCE	MARKS	PAGE
33.	**Q3(b)**	AS Paper 1 October 2020	3	**37**
34.	**Q4(b)**	AS Paper 1 October 2020	3	**38**
35.	**Q2**	AS Paper 1 June 2016	4	**39**
36.	**Q3**	AS Paper 1 June 2016	4	**40**
37.	**Q3**	AS Paper 1 June 2017	4	**41**
38.	**Q5**	AS Paper 1 June 2017	4	**42**
39.	**Q4**	AS Paper 1 June 2019	4	**44**
40.	**Q3**	AS Paper 1 October 2020	4	**46**
41.	**Q4**	AS Paper 1 October 2020	4	**48**
42.	**Q2**	AS Paper 1 June 2022	4	**50**
43.	**Q1**	AS Paper 1 June 2023	4	**52**
44.	**Q3**	A Level Paper 1 June 2017	5	**54**
45.	**Q6(a)**	AS Paper 1 June 2017	5	**56**
46.	**Q2**	A Level Paper 1 June 2018	5	**59**
47.	**Q1**	A Level Paper 1 October 2020	5	**62**
48.	**Q3**	A Level Paper 1 October 2020	5	**63**
49.	**Q6(a)**	A Level Paper 1 October 2020	5	**64**
50.	**Q6(a)**	AS Paper 1 June 2022	5	**67**
51.	**Q4**	A Level Paper 1 June 2024	5	**70**
52.	**Q3**	A Level Paper 1 June 2025	5	**71**
53.	**Q2(a)**	A Level Paper 3 June 2025	5	**75**
54.	**Q6(d)**	AS Paper 1 June 2024	6	**76**
55.	**Q1(c)**	A Level Paper 3 June 2018	8	**79**
56.	**Q6(b)**	AS Paper 1 June 2016	10	**85**
57.	**Q1(c)**	A Level Paper 3 October 2020	12	**90**
58.	**Q6(d)**	A Level Paper 1 November 2021	12	**96**
59.	**Q2(c)**	A Level Paper 3 June 2025	12	**104**
60.	**Q6(e)**	A Level Paper 1 June 2024	15	**107**
61.	**Q6(g)**	AS Paper 1 June 2016	20	**113**
62.	**Q6(f)**	AS Paper 1 June 2017	20	**119**
63.	**Q6(g)**	AS Paper 1 June 2018	20	**125**
64.	**Q6(f)**	AS Paper 1 June 2019	20	**132**
65.	**Q6(g)**	AS Paper 1 June 2019	20	**139**
66.	**Q6(f)**	AS Paper 1 October 2020	20	**146**
67.	**Q6(g)**	AS Paper 1 June 2022	20	**154**
68.	**Q6(f)**	AS Paper 1 June 2023	20	**160**
69.	**Q6(g)**	AS Paper 1 June 2023	20	**166**
70.	**Q6(f)**	AS Paper 1 June 2024	20	**172**
71.	**Q6(g)**	AS Paper 1 June 2024	20	**178**
72.	**Q6(f)**	AS Paper 1 June 2025	20	**187**

	QUESTION	SOURCE	MARKS	PAGE
73.	**Q6(g)**	AS Paper 1 June 2025	20	**194**
74.	**Q7**	A Level Paper 1 June 2017	25	**198**
75.	**Q1(d)**	A Level Paper 3 June 2019	25	**202**
76.	**Q1(e)**	A Level Paper 3 June 2019	25	**209**
77.	**Q7**	A Level Paper 1 November 2021	25	**216**
78.	**Q1(e)**	A Level Paper 3 November 2021	25	**220**
79.	**Q1(e)**	A Level Paper 3 June 2022	25	**226**
80.	**Q7**	A Level Paper 1 June 2023	25	**233**
81.	**Q8**	A Level Paper 1 June 2023	25	**237**
82.	**Q8**	A Level Paper 1 June 2025	25	**241**
1.4.2	**GOVERNMENT FAILURE**		8 Qs · 96 marks	**245**
83.	**Q5(a)**	AS Paper 1 October 2020	1	**246**
84.	**Q4(b)**	A Level Paper 1 June 2024	1	**247**
85.	**Q5**	AS Paper 1 October 2020	4	**248**
86.	**Q6(a)**	AS Paper 1 June 2024	5	**250**
87.	**Q6(f)**	AS Paper 1 June 2016	20	**253**
88.	**Q6(g)**	AS Paper 1 June 2017	20	**259**
89.	**Q6(g)**	AS Paper 1 October 2020	20	**265**
90.	**Q7**	A Level Paper 1 June 2025	25	**273**

QUESTIONS

90 questions · 793 marks · 2 sub-topics

SUB-TOPIC 1.4.1

GOVERNMENT INTERVENTION IN MARKETS

Sub-topic 1.4.1 · 82 questions · 697 marks · lowest tariff first

2 (a) Define the term 'external benefits'.

(1)

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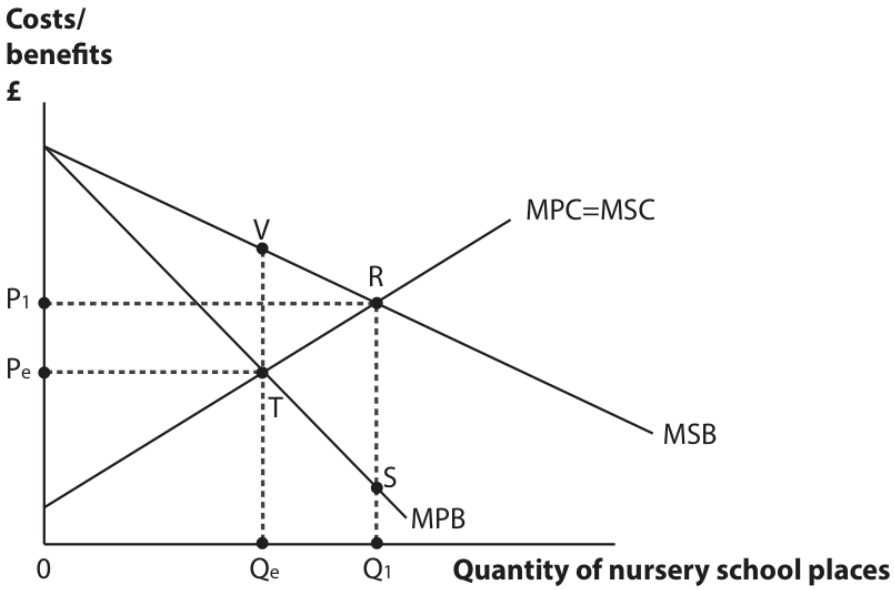
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(Total for Question 2(a) = 1 mark)

Diagram A shows the market for nursery school places.

Diagram A



(b) Which **one** of the following measures could a government introduce to achieve the social optimum consumption of nursery school places?

It could introduce a:

(1)

- ☒ **A** maximum price of 0P1 per unit
- ☒ **B** subsidy of RS per unit
- ☒ **C** tax of VT per unit
- ☒ **D** minimum price of 0P1 per unit

(Total for Question 2(b) = 1 mark)

3 The area around Lake Naivasha in Kenya supplies 70% of the UK cut-rose flower market. Much of the water which the flower farms are dependent on is extracted from the lake. This has resulted in damage to fish stocks and increasing competition for water.

(Source: adapted from 'Flower Struggles', Matthew Wilson, House and Home, Financial Times, 28 February/1 March 2015)

(a) The impact of the flower industry on workers in the fishing industry is an example of:

(1)

- ☒ **A** private benefits
- ☒ **B** private costs
- ☒ **C** external costs
- ☒ **D** external benefits

(Total for Question 3(a) = 1 mark)

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(a) Define the term 'subsidies'.

(1)

.....

.....

(Total for Question 3(a) = 1 mark)

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(b) The most likely effect of cutting subsidies for the installation of solar panels is to:

(1)

- ☒ **A** increase producer surplus
- ☒ **B** decrease the provision of public goods
- ☒ **C** decrease consumer surplus
- ☒ **D** increase government expenditure

(Total for Question 3(b) = 1 mark)

5 Universities UK raised concerns about the proposal to reduce the maximum tuition fees (fee cap) for undergraduate courses in England from £9 000 to £6 000. It stated "This unfunded proposal to reduce the fee cap would damage the quality of experience our universities could deliver to students and remove opportunities for those seeking to benefit from a university education".

(Source: adapted from tuition fees 2015 Times letter Universities UK http://www.universitiesuk.ac.uk/highereducation/Pages/UUKboardFeesLetter.aspx#.VjoQRbfhDIU)

(b) Which **one** of the following statements is correct?

(1)

- ☒ **A** The marginal social benefits exceed the marginal private benefits from university education
- ☒ **B** University education is an inferior good
- ☒ **C** University education is a public good
- ☒ **D** The social optimum equilibrium quantity is less than the market equilibrium quantity for university education

(Total for Question 5(b) = 1 mark)

4 In 2016 the average energy bill per household was £1 070 per year, excluding VAT, an indirect tax charged at 5%.

(Source: adapted from ©Crown Copyright https://www.ofgem.gov.uk/publications-and-updates/infographic-bills-prices-and-profits)

(a) The amount of VAT paid per year from energy bills by an average household in 2016 was:

(1)

- ☒ **A** £53.50
- ☒ **B** £214.00
- ☒ **C** £1 019.00
- ☒ **D** £1 123.50

(Total for Question 4(a) = 1 mark)

4 In 2016 the average energy bill per household was £1 070 per year, excluding VAT, an indirect tax charged at 5%.

(Source: adapted from ©Crown Copyright https://www.ofgem.gov.uk/publications-and-updates/infographic-bills-prices-and-profits)

(c) Define the term 'indirect tax'.

(1)

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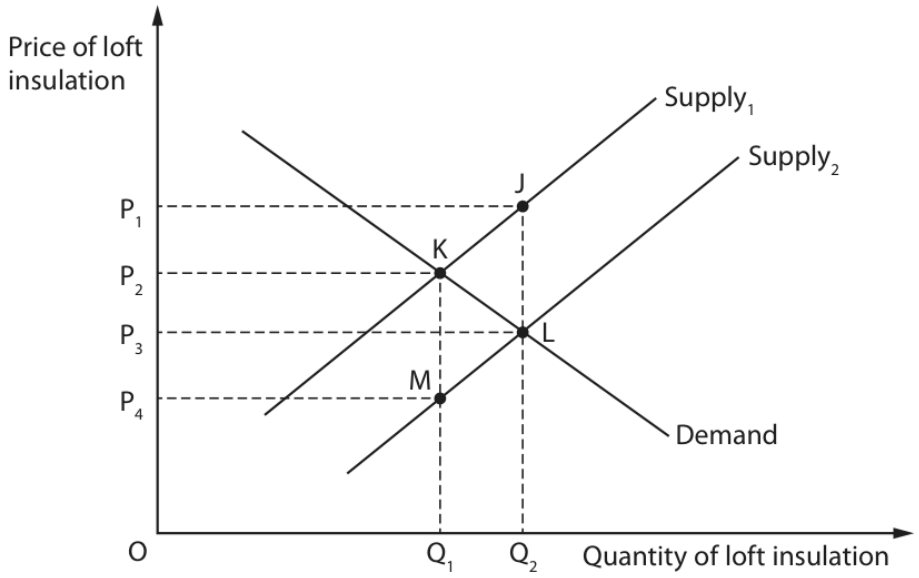
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(Total for Question 4(c) = 1 mark)

3 The 'Energy Company Obligation' is the government's term for its programme to make houses in the UK more energy efficient.

(a) In the diagram below, the government grants a subsidy to energy suppliers to install loft insulation. This shifts the market supply curve for loft insulation from $Supply_1$ to $Supply_2$.



The total amount spent by the government on subsidies is represented by the area:

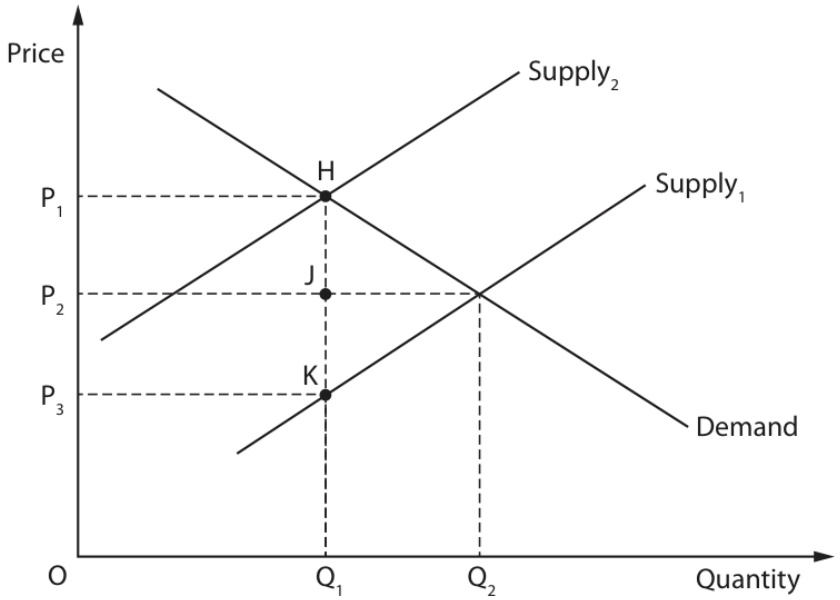
(1)

- ☒ **A** OP_1JQ_2
- ☒ **B** OP_3LQ_2
- ☒ **C** P_3P_1JL
- ☒ **D** P_4P_2KM

(Total for Question 3(a) = 1 mark)

4 The UK Government uses a range of indirect taxes to affect the market prices and quantities of many goods and services.

(a) In the diagram below, the government imposes a specific tax on a product. This shifts the supply curve from $Supply_1$ to $Supply_2$.



The government's tax revenue is shown by the area:

(1)

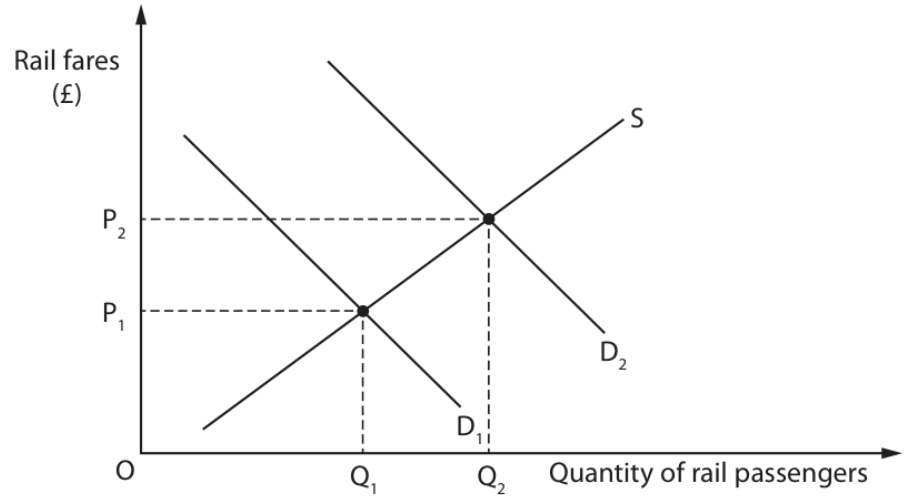
- ☒ **A** OP_1HQ_1
- ☒ **B** P_2P_1HJ
- ☒ **C** P_3P_1HK
- ☒ **D** P_3P_2JK

(Total for Question 4(a) = 1 mark)

5 HS2 is a high-speed rail network linking the north and south of England. HS2 will be four years late and cost double the Department for Transport's original estimate.

(Source: https://www.transportxtra.com/publications/local-transport-today/news/58459/hs2-will-be-four-years-late-and-cost-double-the-dft-s-estimate-mps-told)

(c) The diagram below shows the demand for and supply of passenger rail services.



The shift of the demand curve from D_1 to D_2 is most likely to result from a:

(1)

- ☒ **A** government decision to impose a tax on workplace parking
- ☒ **B** government decision to increase subsidies for rail travel
- ☒ **C** planned expansion of the government's railway track building programme
- ☒ **D** reduction in the tax imposed on a litre of petrol

(Total for Question 5(c) = 1 mark)

2 The Common Agricultural Policy (CAP) is a system of minimum prices and other programmes covering farming, environmental measures and rural development. The CAP applied to British farmers before the UK left the EU in January 2020.

(Source adapted from: https://www.gov.uk/government/collections/common-agricultural-policy-reform)

(a) Define the term 'minimum price'.

(1)

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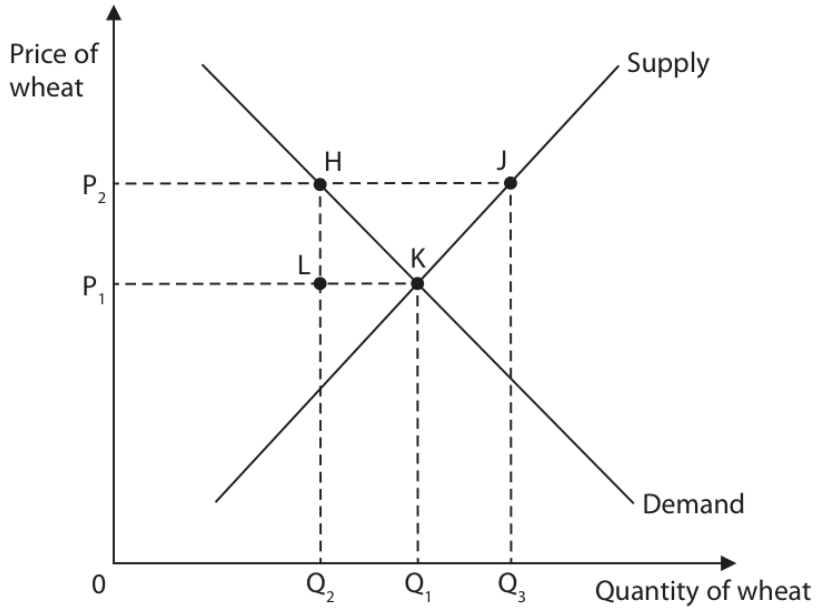
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(Total for Question 2(a) = 1 mark)

2 The Common Agricultural Policy (CAP) is a system of minimum prices and other programmes covering farming, environmental measures and rural development. The CAP applied to British farmers before the UK left the EU in January 2020.

(Source adapted from: https://www.gov.uk/government/collections/common-agricultural-policy-reform)

The diagram below shows the demand and supply curves for wheat in the European Union (EU).



The free market price of wheat is P_1. It had been agreed as part of the CAP to maintain a price of P_2 within the EU and to do so through intervention buying.

(b) In achieving a price of P_2, the amount spent on intervention buying by the EU would be

(1)

- ☒ **A** HKL
- ☒ **B** JHQ_2Q_3
- ☒ **C** LKJH
- ☒ **D** Q_1Q_2LK

(Total for Question 2(b) = 1 mark)

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 25 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 In 2021, energy regulator Ofgem announced that the maximum price of energy will rise from £1 277 to £1 971 a year, for the average household bill.

(Source: adapted from https://www.moneysavingexpert.com/utilities/what-is-the-energy-price-cap/)

(a) Which **one** of the following is the percentage increase in the maximum price to the average household bill?

(1)

- ☒ **A** 35%
- ☒ **B** 45%
- ☒ **C** 54%
- ☒ **D** 694%

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

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 25 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 In 2021, energy regulator Ofgem announced that the maximum price of energy will rise from £1 277 to £1 971 a year, for the average household bill.

(Source: adapted from https://www.moneysavingexpert.com/utilities/what-is-the-energy-price-cap/)

(c) Define the term 'equilibrium price'.

(1)

.....

.....

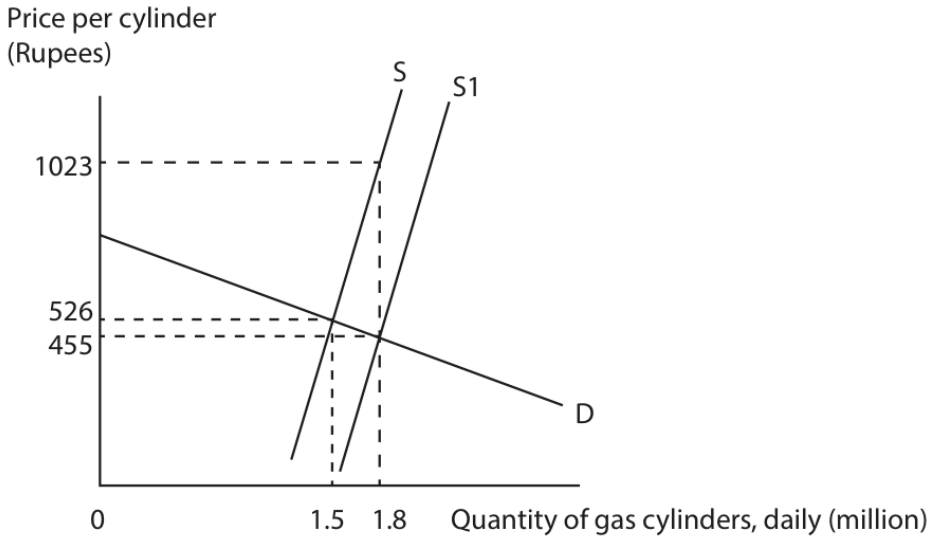
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(Total for Question 1(c) = 1 mark)

3 The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.



(Source: https://www.iocl.com/products/indanegas.aspx and http://indianexpress.com/article/business/business-others/lpg-subsidy-fixed-at-rs-568-price-to-change-after-march/)

(b) Calculate the percentage share of the total subsidy received by:

(i) consumers

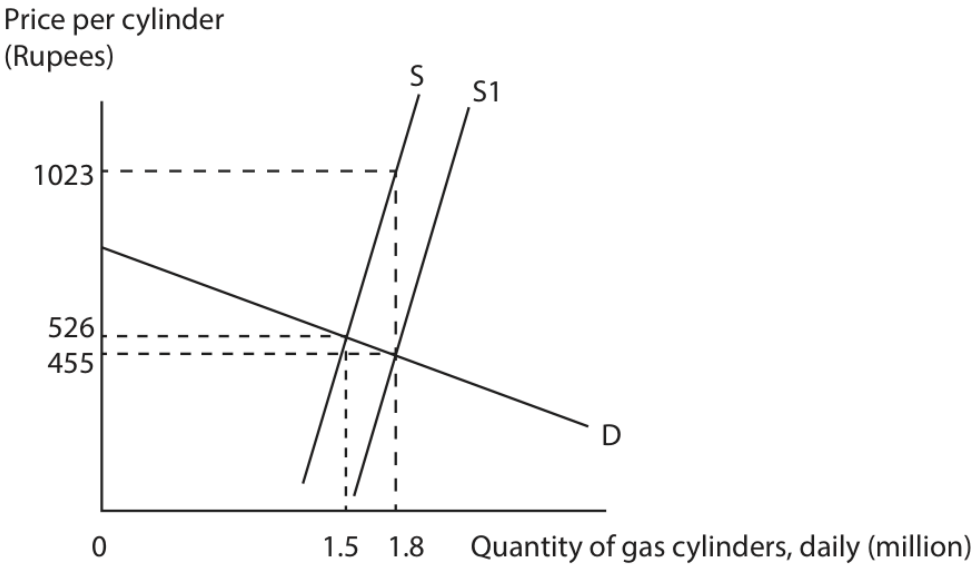
(1)

(ii) producers

(1)

(Total for Question 3(b) = 1 mark)

3 The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.



(Source: https://www.iocl.com/products/indanegas.aspx and http://indianexpress.com/article/business/business-others/lpg-subsidy-fixed-at-rs-568-price-to-change-after-march/)

(c) One effect of the subsidy is to increase:

(1)

- ☒ **A** consumer surplus
- ☒ **B** market failure
- ☒ **C** public good provision
- ☒ **D** tax revenue

(Total for Question 3(c) = 1 mark)

2 The number of individual weekly ticket sales from UK National Lottery games operated by Camelot was 73 million in the financial year 2015–2016.

The sale price of each lottery ticket was £2. This figure included 24 pence of tax revenue on each ticket sold.

In 2016 a coastal flood defence scheme was completed at Broomhill Sands in Kent, protecting people, homes and businesses. A £30 million grant from the National Lottery paid for the scheme.

(Source: https://www.gov.uk/government/news/30-million-project-set-to-reduce-flood-risk-in-kent)

(c) The most likely reason for this grant is to ensure the:

(1)

- ☒ **A** exclusivity of Broomhill Sands
- ☒ **B** provision of a private good
- ☒ **C** provision of a public good
- ☒ **D** rivalry of Broomhill Sands

(Total for Question 2(c) = 1 mark)

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 30 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 Fuel duty is an excise tax imposed on the sale of petrol, included in the price paid by consumers, set at 58 pence per litre.

(Source: https://www.gov.uk/tax-on-shopping/fuel-duty)

(b) The indirect tax on fuel is increased in a market in which the price elasticity of demand is –0.1. Which **one** of the following is the most likely effect on consumer and producer surplus?

(1)

- ☒ **A** Consumer surplus and producer surplus both decrease
- ☒ **B** Consumer surplus and producer surplus both increase
- ☒ **C** Consumer surplus decreases and producer surplus increases
- ☒ **D** Consumer surplus increases and producer surplus decreases

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

3 The EU tradable pollution permits scheme is expected to become more effective by 2020, due to recent reductions in the number of tradable pollution permits.

(Source adapted from: https://ec.europa.eu/clima/policies/ets_en)

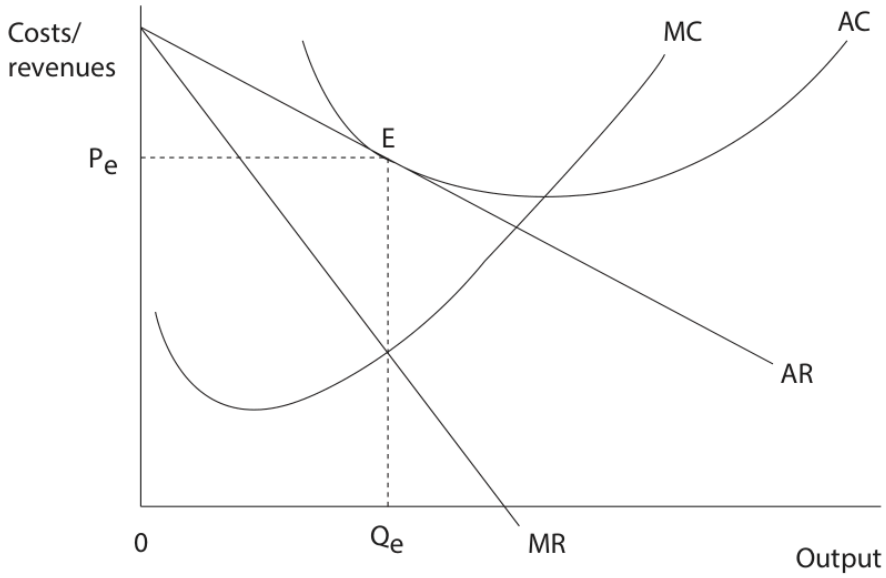
(b) Regulation of firms that pollute is likely to be a problem because it

(1)

- ☒ **A** allows firms to use price signals
- ☒ **B** creates unintended consequences
- ☒ **C** fills information gaps for businesses
- ☒ **D** means lower administrative costs

(Total for Question 3(b) = 1 mark)

3 The diagram below shows the equilibrium position of a dental practice operating in a monopolistically competitive industry.



(a) Which **one** of the following applies to the dental practice's equilibrium at point E?

The dental practice is:

(1)

- ☒ **A** in long-run equilibrium
- ☒ **B** making normal profit because average revenue is greater than average cost
- ☒ **C** making supernormal profit because marginal cost equals marginal revenue
- ☒ **D** productively efficient

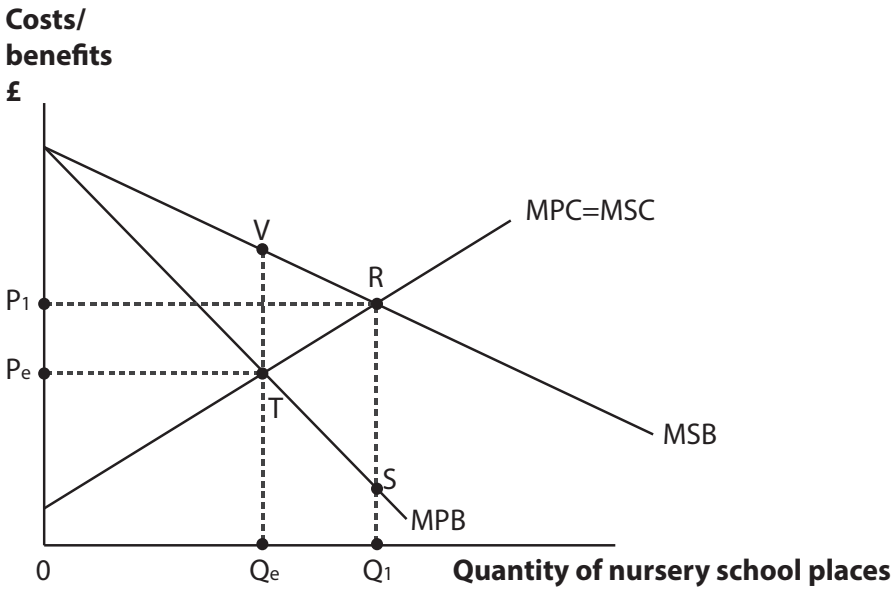
(Total for Question 3(a) = 1 mark)

2 (a) Define the term 'external benefits'.

(1)

Diagram A shows the market for nursery school places.

Diagram A



(b) Which **one** of the following measures could a government introduce to achieve the social optimum consumption of nursery school places?

It could introduce a:

(1)

- ☒ **A** maximum price of 0P1 per unit
- ☒ **B** subsidy of RS per unit
- ☒ **C** tax of VT per unit
- ☒ **D** minimum price of 0P1 per unit

(c) Annotate on Diagram A the welfare gain area and the new social optimum output resulting from successful government intervention in the market for nursery places.

(2)

(Total for Question 2 = 4 marks)

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(a) Define the term 'subsidies'.

(1)

.....

.....

(b) The most likely effect of cutting subsidies for the installation of solar panels is to:

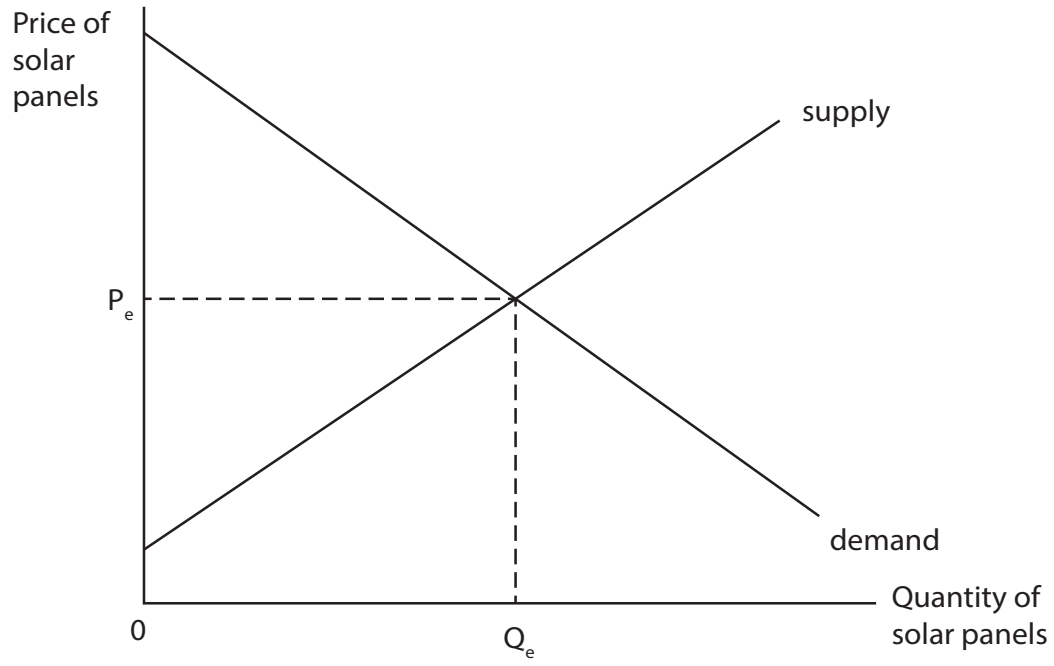
(1)

- ☒ **A** increase producer surplus
- ☒ **B** decrease the provision of public goods
- ☒ **C** decrease consumer surplus
- ☒ **D** increase government expenditure

(c) Annotate the diagram below to show the effect of removing the solar panel installation subsidy on the equilibrium price and quantity.

(2)

Solar panel installation market diagram



(Total for Question 3 = 4 marks)

4 In 2016 the average energy bill per household was £1 070 per year, excluding VAT, an indirect tax charged at 5%.

(Source: adapted from ©Crown Copyright https://www.ofgem.gov.uk/publications-and-updates/infographic-bills-prices-and-profits)

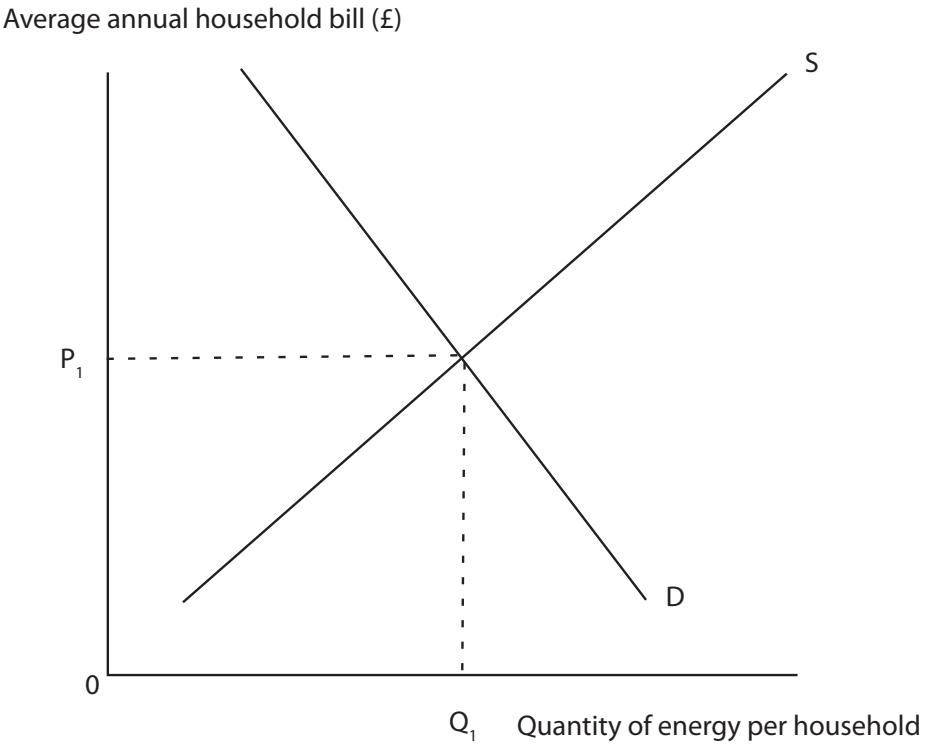
(a) The amount of VAT paid per year from energy bills by an average household in 2016 was:

(1)

- ☒ **A** £53.50
- ☒ **B** £214.00
- ☒ **C** £1 019.00
- ☒ **D** £1 123.50

(b) On the diagram below annotate the effect of a rise in VAT on the market for household energy use.

(2)



5 HS2 is a high-speed rail network linking the north and south of England. HS2 will be four years late and cost double the Department for Transport's original estimate.

(Source: https://www.transportxtra.com/publications/local-transport-today/news/58459/hs2-will-be-four-years-late-and-cost-double-the-dft-s-estimate-mps-told)

(b) Explain **one** likely microeconomic reason why the government is using taxpayers' money to fund HS2.

(2)

(Total for Question 5(b) = 2 marks)

2 The Common Agricultural Policy (CAP) is a system of minimum prices and other programmes covering farming, environmental measures and rural development. The CAP applied to British farmers before the UK left the EU in January 2020.

(Source adapted from: https://www.gov.uk/government/collections/common-agricultural-policy-reform)

(c) Explain **one** likely problem for the EU of maintaining prices at P_2.

(2)

(Total for Question 2(c) = 2 marks)

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 25 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 In 2021, energy regulator Ofgem announced that the maximum price of energy will rise from £1 277 to £1 971 a year, for the average household bill.

(Source: adapted from https://www.moneysavingexpert.com/utilities/what-is-the-energy-price-cap/)

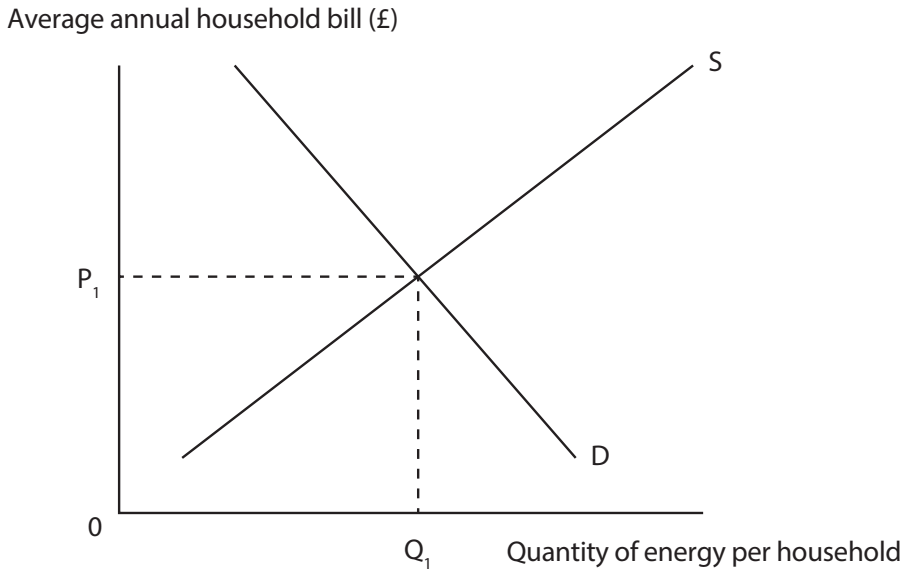
(a) Which **one** of the following is the percentage increase in the maximum price to the average household bill?

(1)

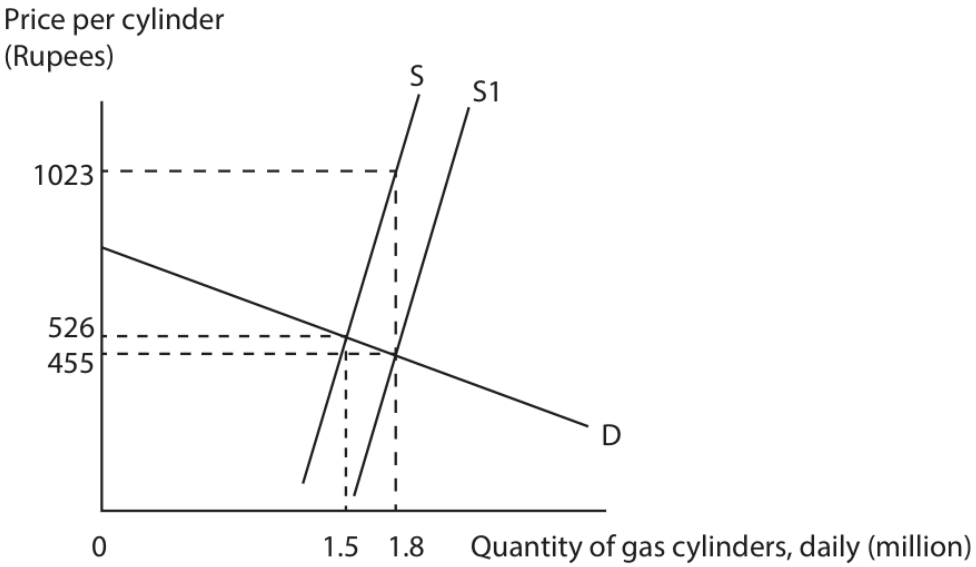
- ☐ **A** 35%
- ☐ **B** 45%
- ☐ **C** 54%
- ☐ **D** 694%

(b) Annotate the diagram below to show the original **and** new maximum price in this market.

(2)



3 The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.



(Source: https://www.iocl.com/products/indanegas.aspx and http://indianexpress.com/article/business/business-others/lpg-subsidy-fixed-at-rs-568-price-to-change-after-march/)

(a) Calculate the total domestic cooking gas subsidy paid daily by the Indian government. You are advised to show your working.

(2)

(Total for Question 3(a) = 2 marks)

2 The number of individual weekly ticket sales from UK National Lottery games operated by Camelot was 73 million in the financial year 2015–2016.

The sale price of each lottery ticket was £2. This figure included 24 pence of tax revenue on each ticket sold.

(a) Calculate the weekly revenue received by Camelot after paying the tax to the government. You are advised to show your working.

(2)

(Total for Question 2(a) = 2 marks)

2 The number of individual weekly ticket sales from UK National Lottery games operated by Camelot was 73 million in the financial year 2015–2016.

The sale price of each lottery ticket was £2. This figure included 24 pence of tax revenue on each ticket sold.

Research conducted for HMRC estimated the cross elasticity of demand for using gaming machines to be 1.28 in response to changes in the price of national lottery tickets.

(Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322845/report313.pdf)

In October 2013 Camelot increased the price of a national lottery ticket from £1 to £2.

(b) Explain the likely impact of the price increase of national lottery tickets on the demand for using gaming machines.

(2)

(Total for Question 2(b) = 2 marks)

3 The area around Lake Naivasha in Kenya supplies 70% of the UK cut-rose flower market. Much of the water which the flower farms are dependent on is extracted from the lake. This has resulted in damage to fish stocks and increasing competition for water.

(Source: adapted from 'Flower Struggles', Matthew Wilson, House and Home, Financial Times, 28 February/1 March 2015)

(b) Explain **one** measure the Kenyan government could use to reduce the impact of water extraction from Lake Naivasha.

(3)

(Total for Question 3(b) = 3 marks)

5 Universities UK raised concerns about the proposal to reduce the maximum tuition fees (fee cap) for undergraduate courses in England from £9 000 to £6 000. It stated "This unfunded proposal to reduce the fee cap would damage the quality of experience our universities could deliver to students and remove opportunities for those seeking to benefit from a university education".

(Source: adapted from tuition fees 2015 Times letter Universities UK http://www.universitiesuk.ac.uk/highereducation/Pages/UUKboardFeesLetter.aspx#.VjoQRbfhDIU)

(a) Explain why reducing the tuition fee cap may result in excess demand for university places.

(3)

(Total for Question 5(a) = 3 marks)

3 The 'Energy Company Obligation' is the government's term for its programme to make houses in the UK more energy efficient.

(b) Explain an opportunity cost to the government of granting subsidies to energy suppliers to install loft insulation.

(3)

(Total for Question 3(b) = 3 marks)

4 The UK Government uses a range of indirect taxes to affect the market prices and quantities of many goods and services.

(b) Using an example, explain why the government imposes **specific** taxes on many goods and services.

(3)

(Total for Question 4(b) = 3 marks)

2 (a) Define the term 'external benefits'.

(1)

.....

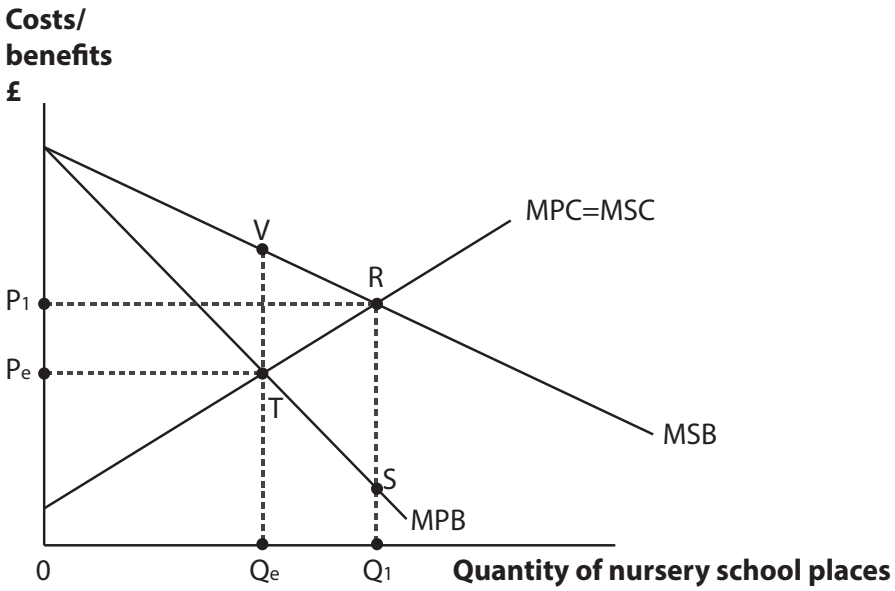
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Diagram A shows the market for nursery school places.

Diagram A



(b) Which **one** of the following measures could a government introduce to achieve the social optimum consumption of nursery school places?

It could introduce a:

(1)

- ☒ **A** maximum price of 0P1 per unit
- ☒ **B** subsidy of RS per unit
- ☒ **C** tax of VT per unit
- ☒ **D** minimum price of 0P1 per unit

(c) Annotate on Diagram A the welfare gain area and the new social optimum output resulting from successful government intervention in the market for nursery places.

(2)

(Total for Question 2 = 4 marks)

3 The area around Lake Naivasha in Kenya supplies 70% of the UK cut-rose flower market. Much of the water which the flower farms are dependent on is extracted from the lake. This has resulted in damage to fish stocks and increasing competition for water.

(Source: adapted from 'Flower Struggles', Matthew Wilson, House and Home, Financial Times, 28 February/1 March 2015)

(a) The impact of the flower industry on workers in the fishing industry is an example of:

(1)

- ☒ **A** private benefits
- ☒ **B** private costs
- ☒ **C** external costs
- ☒ **D** external benefits

(b) Explain **one** measure the Kenyan government could use to reduce the impact of water extraction from Lake Naivasha.

(3)

(Total for Question 3 = 4 marks)

3 In 2015 the UK government cut subsidies for the installation of solar energy panels.

(a) Define the term 'subsidies'.

(1)

.....

.....

(b) The most likely effect of cutting subsidies for the installation of solar panels is to:

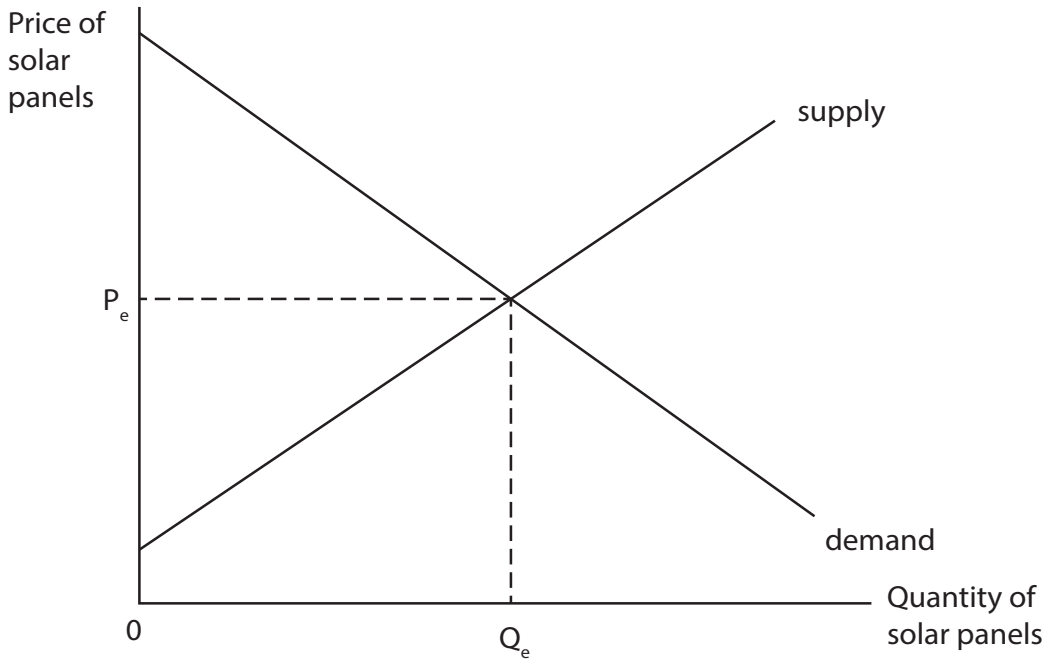
(1)

- ☒ **A** increase producer surplus
- ☒ **B** decrease the provision of public goods
- ☒ **C** decrease consumer surplus
- ☒ **D** increase government expenditure

(c) Annotate the diagram below to show the effect of removing the solar panel installation subsidy on the equilibrium price and quantity.

(2)

Solar panel installation market diagram



(Total for Question 3 = 4 marks)

5 Universities UK raised concerns about the proposal to reduce the maximum tuition fees (fee cap) for undergraduate courses in England from £9 000 to £6 000. It stated "This unfunded proposal to reduce the fee cap would damage the quality of experience our universities could deliver to students and remove opportunities for those seeking to benefit from a university education".

(Source: adapted from tuition fees 2015 Times letter Universities UK http://www.universitiesuk.ac.uk/highereducation/Pages/UUKboardFeesLetter.aspx#.VjoQRbfhDIU)

(a) Explain why reducing the tuition fee cap may result in excess demand for university places.

(3)

(b) Which **one** of the following statements is correct?

(1)

- ☒ **A** The marginal social benefits exceed the marginal private benefits from university education
- ☒ **B** University education is an inferior good
- ☒ **C** University education is a public good
- ☒ **D** The social optimum equilibrium quantity is less than the market equilibrium quantity for university education

(Total for Question 5 = 4 marks)

TOTAL FOR SECTION A = 20 MARKS

4 In 2016 the average energy bill per household was £1 070 per year, excluding VAT, an indirect tax charged at 5%.

(Source: adapted from ©Crown Copyright https://www.ofgem.gov.uk/publications-and-updates/infographic-bills-prices-and-profits)

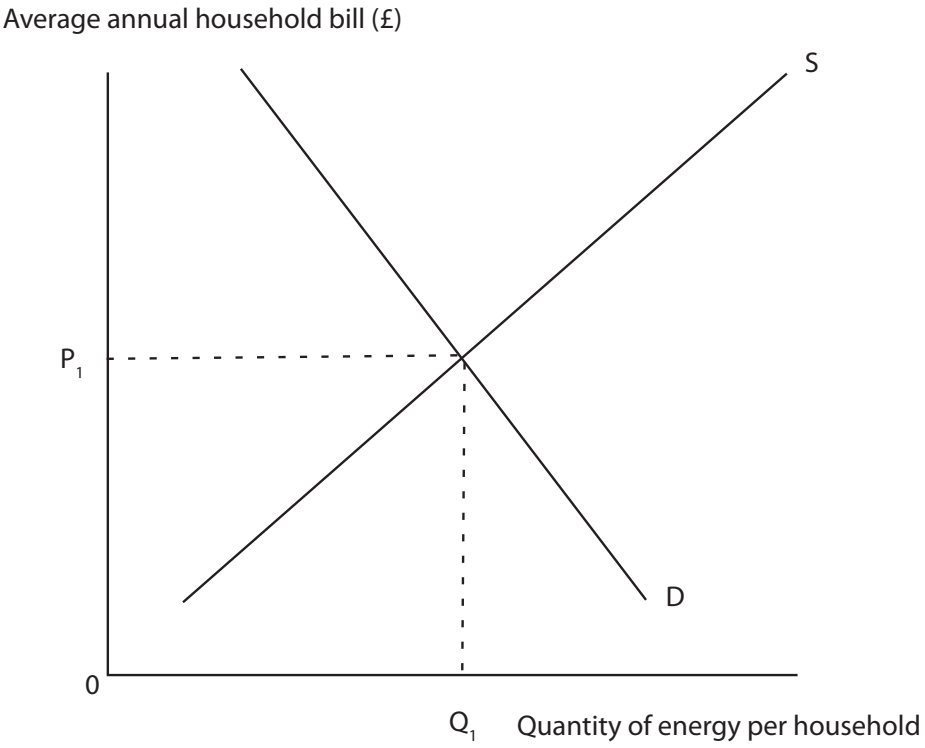
(a) The amount of VAT paid per year from energy bills by an average household in 2016 was:

(1)

- ☒ **A** £53.50
- ☒ **B** £214.00
- ☒ **C** £1 019.00
- ☒ **D** £1 123.50

(b) On the diagram below annotate the effect of a rise in VAT on the market for household energy use.

(2)



(c) Define the term 'indirect tax'.

(1)

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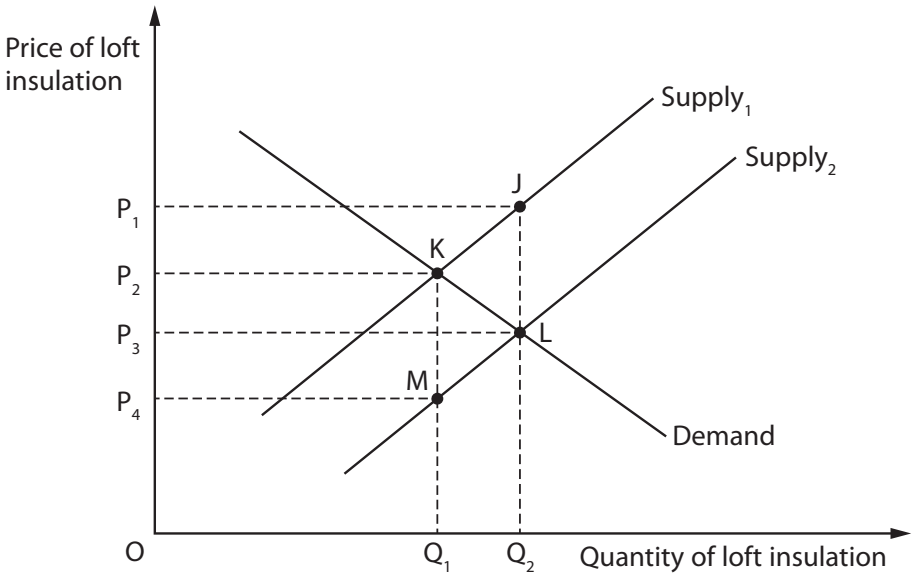
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(Total for Question 4 = 4 marks)

3 The 'Energy Company Obligation' is the government's term for its programme to make houses in the UK more energy efficient.

(a) In the diagram below, the government grants a subsidy to energy suppliers to install loft insulation. This shifts the market supply curve for loft insulation from $Supply_1$ to $Supply_2$.



The total amount spent by the government on subsidies is represented by the area:

(1)

- ☒ **A** OP_1JQ_2
- ☒ **B** OP_3LQ_2
- ☒ **C** P_3P_1JL
- ☒ **D** P_4P_2KM

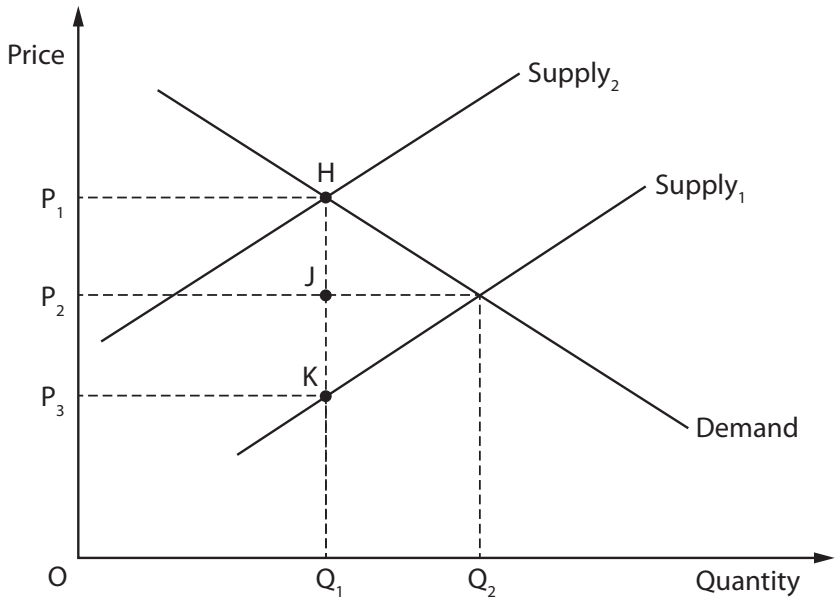
(b) Explain an opportunity cost to the government of granting subsidies to energy suppliers to install loft insulation.

(3)

(Total for Question 3 = 4 marks)

4 The UK Government uses a range of indirect taxes to affect the market prices and quantities of many goods and services.

(a) In the diagram below, the government imposes a specific tax on a product. This shifts the supply curve from $Supply_1$ to $Supply_2$.



The government's tax revenue is shown by the area:

(1)

☒ **A** OP_1HQ_1

☒ **B** P_2P_1HJ

☒ **C** P_3P_1HK

☒ **D** P_3P_2JK

(b) Using an example, explain why the government imposes **specific** taxes on many goods and services.

(3)

(Total for Question 4 = 4 marks)

2 The Common Agricultural Policy (CAP) is a system of minimum prices and other programmes covering farming, environmental measures and rural development. The CAP applied to British farmers before the UK left the EU in January 2020.

(Source adapted from: https://www.gov.uk/government/collections/common-agricultural-policy-reform)

(a) Define the term 'minimum price'.

(1)

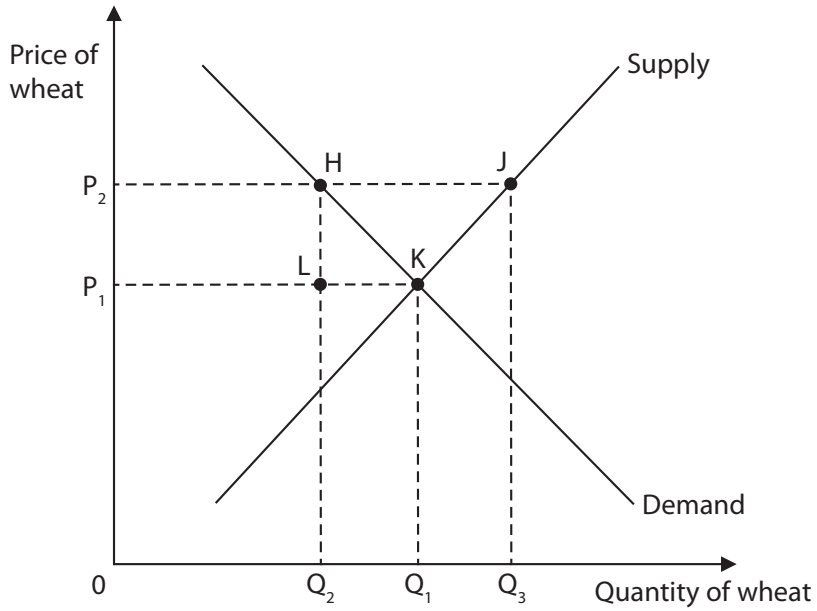
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The diagram below shows the demand and supply curves for wheat in the European Union (EU).



The free market price of wheat is P_1. It had been agreed as part of the CAP to maintain a price of P_2 within the EU and to do so through intervention buying.

(b) In achieving a price of P_2, the amount spent on intervention buying by the EU would be

(1)

☒ **A** HKL

☒ **B** JHQ_2Q_3

☒ **C** LKJH

☒ **D** Q_1Q_2LK

(c) Explain **one** likely problem for the EU of maintaining prices at P_2.

(2)

(Total for Question 2 = 4 marks)

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 25 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 In 2021, energy regulator Ofgem announced that the maximum price of energy will rise from £1 277 to £1 971 a year, for the average household bill.

(Source: adapted from https://www.moneysavingexpert.com/utilities/what-is-the-energy-price-cap/)

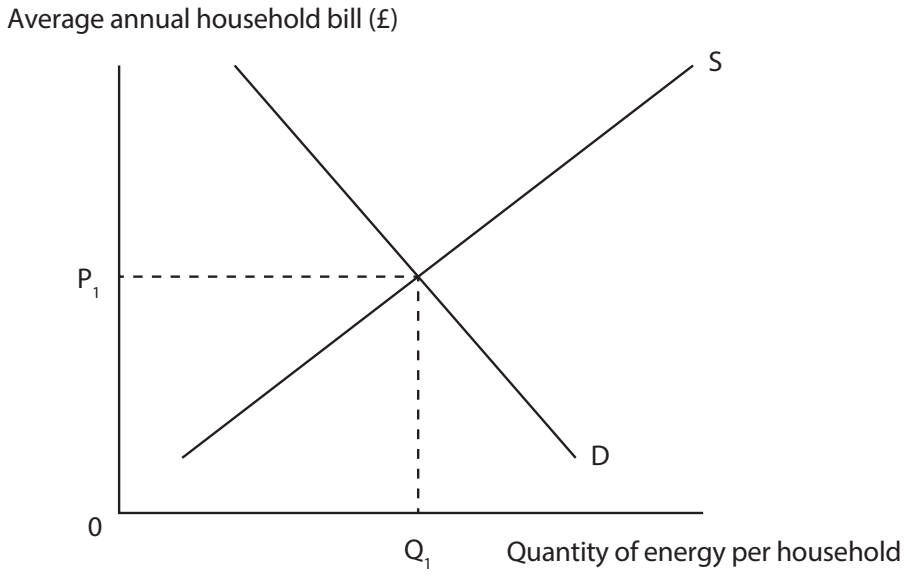
(a) Which **one** of the following is the percentage increase in the maximum price to the average household bill?

(1)

- ☒ **A** 35%
- ☒ **B** 45%
- ☒ **C** 54%
- ☒ **D** 694%

(b) Annotate the diagram below to show the original **and** new maximum price in this market.

(2)



(c) Define the term 'equilibrium price'.

(1)

.....

.....

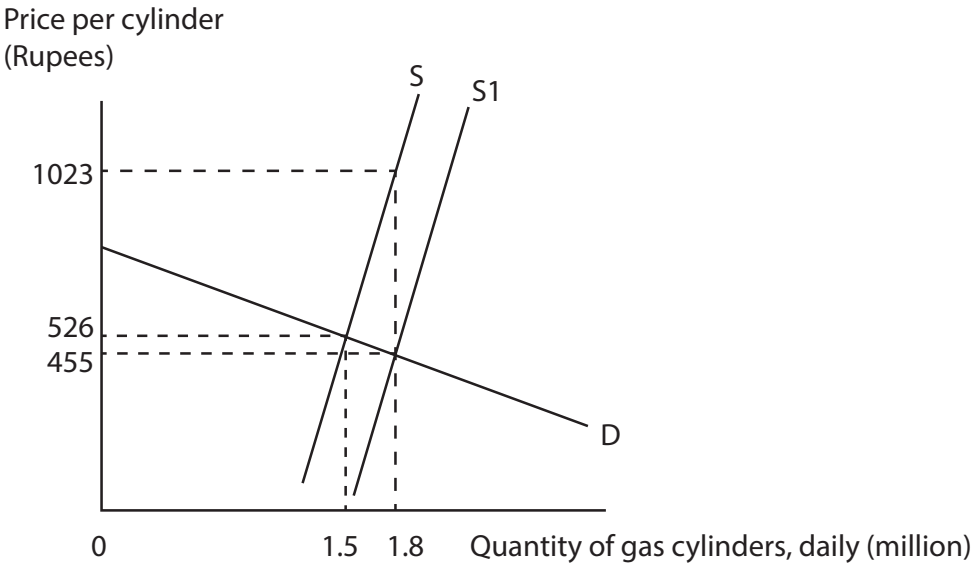
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(Total for Question 1 = 4 marks)

3 The Indian government has introduced a subsidy on domestic cooking gas cylinders in the city of Mumbai. The diagram below shows the effect following the introduction of the subsidy.



(Source: https://www.iocl.com/products/indanegas.aspx and http://indianexpress.com/article/business/business-others/lpg-subsidy-fixed-at-rs-568-price-to-change-after-march/)

(a) Calculate the total domestic cooking gas subsidy paid daily by the Indian government. You are advised to show your working.

(2)

(b) Calculate the percentage share of the total subsidy received by:

(i) consumers

(1)

(ii) producers

(1)

(c) One effect of the subsidy is to increase:

(1)

- ☒ **A** consumer surplus
- ☒ **B** market failure
- ☒ **C** public good provision
- ☒ **D** tax revenue

(Total for Question 3 = 5 marks)

SECTION B

Read Figure 1 and the following extracts (A and B) before answering Question 6.

Answer ALL Question 6 (a) to 6 (e), and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

The market for cigarettes

Figure 1: Price elasticity of demand - a comparison between tobacco and e-cigarettes

Price of packet of 20 tobacco cigarettes £7.70–£9.50	Price of e-cigarette kit £9.99–£19.99
Average price per tobacco cigarette 48p	Single cigarette equivalent price of an e-cigarette 7p
Price elasticity of demand for tobacco cigarettes –0.35	Price elasticity of demand for e-cigarettes –1.9

(Source: adapted from https://www.blucigs.co.uk/united-kingdom/kits/all-kits)

Extract A

Government intervention on tobacco

There was a time when smoking was fashionable. Television and magazine advertisements glorified smoking. Everyone from your dad to your doctor smoked in all places – cars, restaurants and even hospitals.

Tobacco is still the single biggest cause of cancer in the world and the leading cause of preventable deaths. Nearly 80% of the 1 billion smokers worldwide live in low- and middle-income countries.

Bans on tobacco advertising, promotion and sponsorship can reduce tobacco consumption. Comprehensive smoking bans covering indoor workplaces, public places and public transport have been introduced in 48 countries.

Tobacco taxes are the most cost-effective way to reduce tobacco use, especially among the young and people in low-income groups. A tax increase that raises tobacco prices by 10% decreases tobacco consumption by 4% in high-income countries and 5% in low- and middle-income countries.

However, some 8 million people are expected to die each year by 2030 – because they have smoked tobacco or have been exposed to passive smoking. The use of alternative products such as electronic cigarettes (e-cigarettes) are gaining in popularity but information about their effects is uncertain. Little research has yet been done about the long-term health effects of e-cigarettes and the nicotine dispensed by e-cigarettes is highly addictive. The illegal tobacco market still counts for 1 in every 10 cigarettes consumed globally. In addition, tobacco companies still spend tens of billions of dollars each year on advertising and promoting tobacco products and sponsoring events. They continuously challenge the regulatory measures governments are taking.

(Source: adapted from http://www.who.int/topics/tobacco/en/ and http://www.who.int/mediacentre/commentaries/reducing-tobacco-use/en/)

Extract B

Free market approach

Are free markets incompatible with good health? If the solution to every problem involves banning advertising, raising prices and restricting availability, you might easily conclude that the free market is the disease and government regulation is the cure. From this perspective, the providers of food, alcohol and tobacco are determined to push the most unhealthy products on the public at the lowest prices.

Contrary to this viewpoint, the profit motive is not unhealthy. Businesses have an obvious incentive to keep their customers alive and customers have a strong incentive to seek out healthier options. Any company that can make a scientifically sound health claim gains a competitive advantage over its rivals. Health sells. In contrast, government regulation can lead to negative health outcomes. Markets can correct themselves long before government failures are even acknowledged. Over a million Britons, almost all of whom are smokers or ex-smokers, use e-cigarettes, as a less hazardous product than cigarettes and yet e-cigarettes face increased regulations and in many countries they are banned.

It is neither consistent nor ethical to prevent smokers from switching to much safer alternatives. Efforts to regulate e-cigarettes are a far greater threat to public health than the products themselves.

We argue that the interests of consumers are nearly always better advanced by the provision of accurate information and free choice than by prohibitions and regulations. The government policy of small but steady tax rises on tobacco and ever-larger warning labels is becoming less effective and leads to unintended consequences.

(Source: adapted from http://www.iea.org.uk/blog/free-market-solutions-in-health-should-be-allowed-to-flourish, Christopher Snowdon, 11th July 2013)

6 (a) Explain why 'bans on tobacco advertising' (Extract A, line 7) may result in a decrease in the revenue of tobacco firms. Include a supply and demand diagram in your answer.

(5)

2 The number of individual weekly ticket sales from UK National Lottery games operated by Camelot was 73 million in the financial year 2015–2016.

The sale price of each lottery ticket was £2. This figure included 24 pence of tax revenue on each ticket sold.

(a) Calculate the weekly revenue received by Camelot after paying the tax to the government. You are advised to show your working.

(2)

Research conducted for HMRC estimated the cross elasticity of demand for using gaming machines to be 1.28 in response to changes in the price of national lottery tickets.

(Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/322845/report313.pdf)

In October 2013 Camelot increased the price of a national lottery ticket from £1 to £2.

(b) Explain the likely impact of the price increase of national lottery tickets on the demand for using gaming machines.

(2)

In 2016 a coastal flood defence scheme was completed at Broomhill Sands in Kent, protecting people, homes and businesses. A £30 million grant from the National Lottery paid for the scheme.

(Source: https://www.gov.uk/government/news/30-million-project-set-to-reduce-flood-risk-in-kent)

(c) The most likely reason for this grant is to ensure the:

(1)

- ☒ **A** exclusivity of Broomhill Sands
- ☒ **B** provision of a private good
- ☒ **C** provision of a public good
- ☒ **D** rivalry of Broomhill Sands

(Total for Question 2 = 5 marks)

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some 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 ☒.

You are advised to spend 30 minutes on this section.

Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.

1 Fuel duty is an excise tax imposed on the sale of petrol, included in the price paid by consumers, set at 58 pence per litre.

(Source: https://www.gov.uk/tax-on-shopping/fuel-duty)

(a) Draw a supply and demand diagram to show the incidence of a specific petrol tax on consumers and producers.

(4)



(b) The indirect tax on fuel is increased in a market in which the price elasticity of demand is –0.1. Which **one** of the following is the most likely effect on consumer and producer surplus?

(1)

- ☐ **A** Consumer surplus and producer surplus both decrease
- ☐ **B** Consumer surplus and producer surplus both increase
- ☐ **C** Consumer surplus decreases and producer surplus increases
- ☐ **D** Consumer surplus increases and producer surplus decreases

(Total for Question 1 = 5 marks)

3 The EU tradable pollution permits scheme is expected to become more effective by 2020, due to recent reductions in the number of tradable pollution permits.

(Source adapted from: https://ec.europa.eu/clima/policies/ets_en)

(a) Explain **one** likely effect of reducing the number of tradable pollution permits.

(4)

(b) Regulation of firms that pollute is likely to be a problem because it

(1)

- ☒ **A** allows firms to use price signals
- ☒ **B** creates unintended consequences
- ☒ **C** fills information gaps for businesses
- ☒ **D** means lower administrative costs

(Total for Question 3 = 5 marks)

SECTION B

Read Figures 1, 2 and 3 and the following extracts (A and B) before answering Question 6.

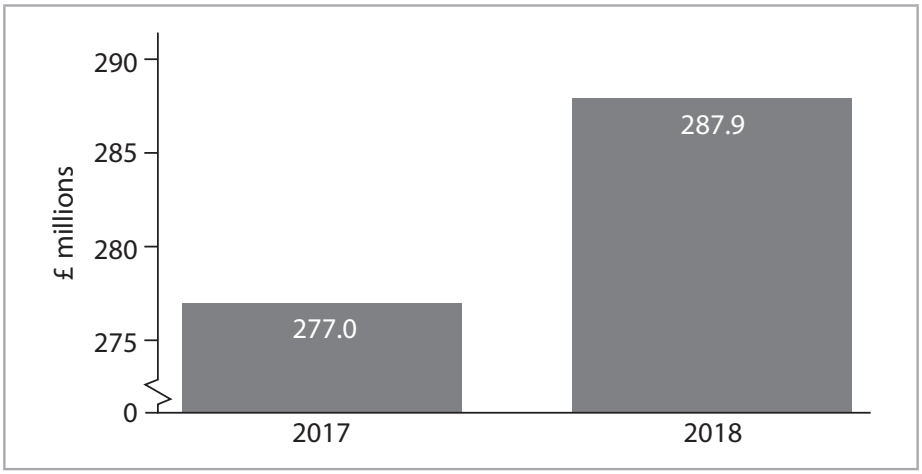
Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 6

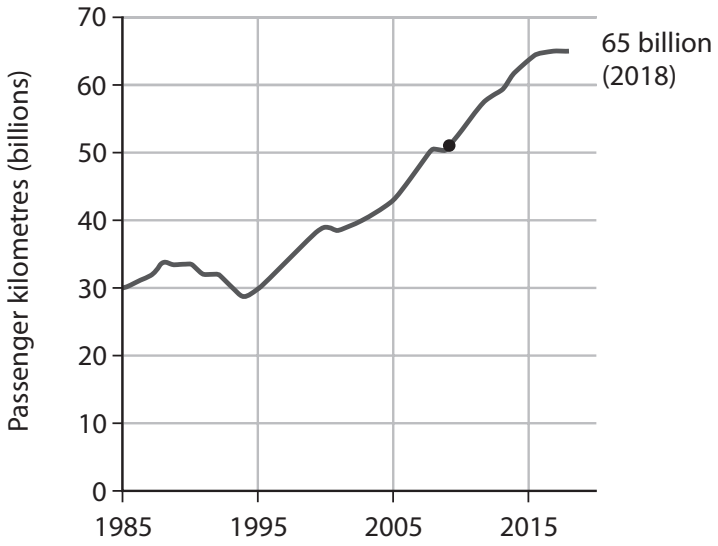
The UK Rail Industry

Figure 1: UK government subsidy to Northern, a train operating company in Northern England



(Source adapted from: https://www.theyworkforyou.com/wrans/?id=2018-10-18.181280.h)

Figure 2: Rail passenger kilometres travelled per year in the UK, billions



(Source adapted from: fullfact.org)

Figure 3: Price of a single off-peak train journey, Edinburgh to Leeds Saturday 22nd December 2018 19:00 hours

Adult	Young Persons (16–25) Railcard
£105.30	£69.50

(Source: https://www.lner.co.uk/buy-tickets/booking-engine)

Extract A

The case for nationalisation

Privatisation has not made the rail industry cheaper to operate, despite the promise from one government source that it would see private companies bringing: "more competition, greater efficiency and a wider choice of services".

One reason, suggest the critics, is fragmentation. Instead of pushing British Rail into the private sector as a single supplier the government chose to break it into three components of track, train operators and rolling stock i.e. the trains and carriages. This has encouraged each part of the rail industry to prioritise its own profits rather than collaborating to improve the system.

Privatisation, meanwhile, never really worked. The rail network of 2 500 stations and 32 000 km of tracks was renationalised in 2001. This has encouraged the government's transport secretary, a supporter of private sector involvement, to argue that the state Network Rail monopoly should be removed so that companies can bid to build new rail lines to upgrade the railway.

The privately-owned train operators are now the subject of fierce criticism, due to overcrowding and cancelled services. Private companies are supposed to compete to win a bid to be the train operator for a region for a short number of years. However in recent years the number of private companies bidding or renewing their contract as rail operators has fallen. In May 2018 the government rescued the East Coast line by renationalising it. The line had been run by the private rail operator Virgin Rail, which was suffering lower passenger numbers and revenue than forecast.

Some argue that there is a simple solution: reunite track and train in the only feasible manner, nationalisation.

(Source adapted from: https://www.ft.com/content/d82848ca-f7ba-11e7-88f7-5465a6ce1a00)

Extract B

Southern Rail boss paid £495 000

The Chief Executive of Southern Rail, the private-sector train operator that has become associated with delays, losses, cancellations and strikes, was paid £495 000 last year. This increased calls for nationalisation and a maximum wage for executives at companies with government contracts. In contrast the average base pay for a train driver in the UK is £47 705, although they can earn up to £63 000.

Nearly a third of Southern Rail trains were late in 2016 as it tried to deal with a labour dispute that involved extensive strike action. The rail trade unions are opposed to planned changes to the role of train guards, which they claim will put passenger safety at risk.

(Source adapted from: Rob Davies, The Guardian 10 April 2017
https://www.theguardian.com/business/2017/apr/10/southern-rail-boss-double-pay-rise)

6 (a) Refer to Figure 1. Explain the likely effect of the change in subsidy levels between 2017 and 2018 on rail fares.

Include a supply and demand diagram in your answer.

(5)

SECTION B

Read Extracts A and B and Figure 1 before answering Question 6.

Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

The market for fish

Extract A

Total allowable catches of North Sea cod halved in response to falling stocks

In 2020, new lower limits on the quantity of cod that can be caught by the UK fishing fleet came into force. These limits on the fish catch, called total allowable catches (TACs), were agreed at the annual EU fisheries negotiations.

It was the last December EU meeting attended by the UK before it left the EU. It was agreed that cod catch limits will be cut by 50% in the North Sea, while reduced limits were agreed for cod in the Celtic Sea, Irish Sea and west of Scotland.

However, there were increases for other types of fish, with TACs for haddock in the North Sea rising by 23% and for sole rising by 19%.

UK Fisheries Minister George Eustice said: "This year there has been mounting scientific evidence suggesting that cod is being overfished in many parts of the northeast Atlantic and we have responded to conserve stocks".

These new regulations applied to the UK while it remained part of the Common Fisheries Policy. In the future it will become an independent coastal state and negotiate on fisheries with the EU and other coastal states such as Norway.

(Source adapted from: https://www.independent.co.uk/news/business/news/north-sea-cod-stocks-quota-climate-change-brexit-a9252196.html)

Figure 1

Atlantic over-fishing: share of total allowable catch (TAC) in excess of scientific advice (2019)

Country	**Excess TAC** (%)	**Excess TAC** (tonnes)
Sweden	52.4	17 369
United Kingdom	24.3	106 925
Ireland	21.7	34 052
Denmark	19.7	49 914
Germany	18.0	20 620
The Netherlands	13.5	31 910
Belgium	10.4	3 009
France	9.4	27 230
Spain	6.6	16 689
Portugal	3.8	3 662

(Source adapted from: Statista 2018)

Extract B

The tragedy of the commons

The 'tragedy of the commons' may occur when there are common access resources (CARs). These are natural resources over which no private ownership has been established. Therefore, there are difficulties in excluding people from using or exploiting them. CARs include fisheries and common grazing lands. Oceans are so vast that it is impractical for one fishing company to establish ownership and control. This means that others cannot be prevented from exploiting the ocean. Economists have suggested that with the lack of ownership of these resources, private producers will act in their own self-interest and exploit CARs to maximise profit. This exploitation is unsustainable. In other words, CARs provide an opportunity for individuals to create profit, while creating negative externalities which impact on everybody else. This process is referred to as the 'tragedy of the commons'.

The 'tragedy of the commons' is at the core of a range of problems that are relevant and threatening to natural resources, environments and human health. In the case of overfishing, fishing companies are not made accountable for the state of the ocean. They continue to fish as much as possible to maximise profit. Today, 90% of fish stocks are depleted.

The reason for such a wide range of problems is because there is an environmental cost for everything. The 'tragedy of the commons' is the outcome of the fact that every resource is limited on this planet, coupled with the rising level of demand for these resources. These issues are large-scale and require laws, regulation and international cooperation.

(Source adapted from: http://felixonline.co.uk/articles/2019-12-09-tragedy-commons-drama-planet-not-enjoying/)

6 (a) Explain the likely impact of the new 2020 TACs on the price of cod. Include a supply and demand diagram in your answer.

(5)

4 In 2022 the government announced that the maximum undergraduate tuition fee for universities in England will remain at £9 250 per year for the next two years.

(Source adapted from: https://questions-statements.parliament.uk/written-statements/detail/2021-10-21/HCWS339)

(a) Explain **one** likely reason for the maximum price for an undergraduate university programme.

(4)

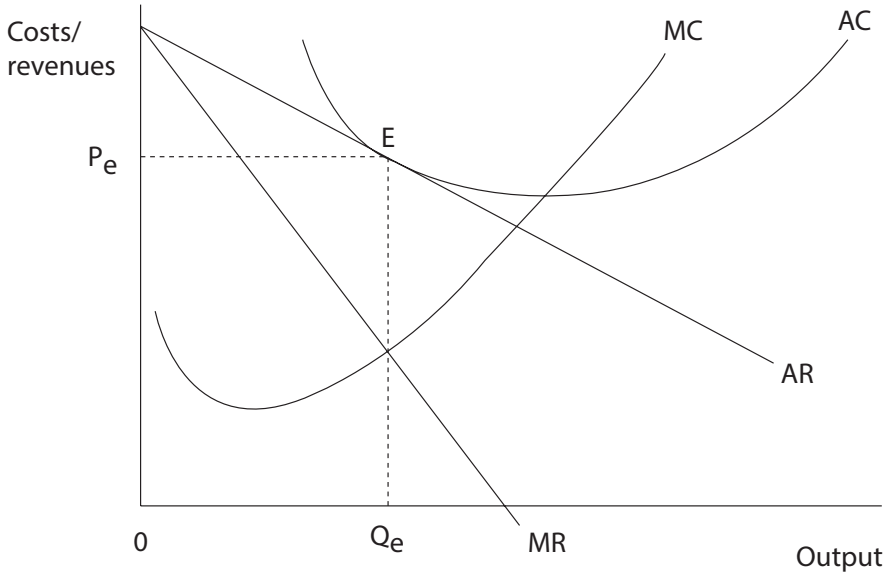
(b) Which **one** of the following is an example of government failure associated with the maximum price?

(1)

- ☒ **A** Contraction in demand
- ☒ **B** Distortion of price signals
- ☒ **C** Excess supply
- ☒ **D** Extension in supply

(Total for Question 4 = 5 marks)

3 The diagram below shows the equilibrium position of a dental practice operating in a monopolistically competitive industry.



(a) Which **one** of the following applies to the dental practice's equilibrium at point E?

The dental practice is:

(1)

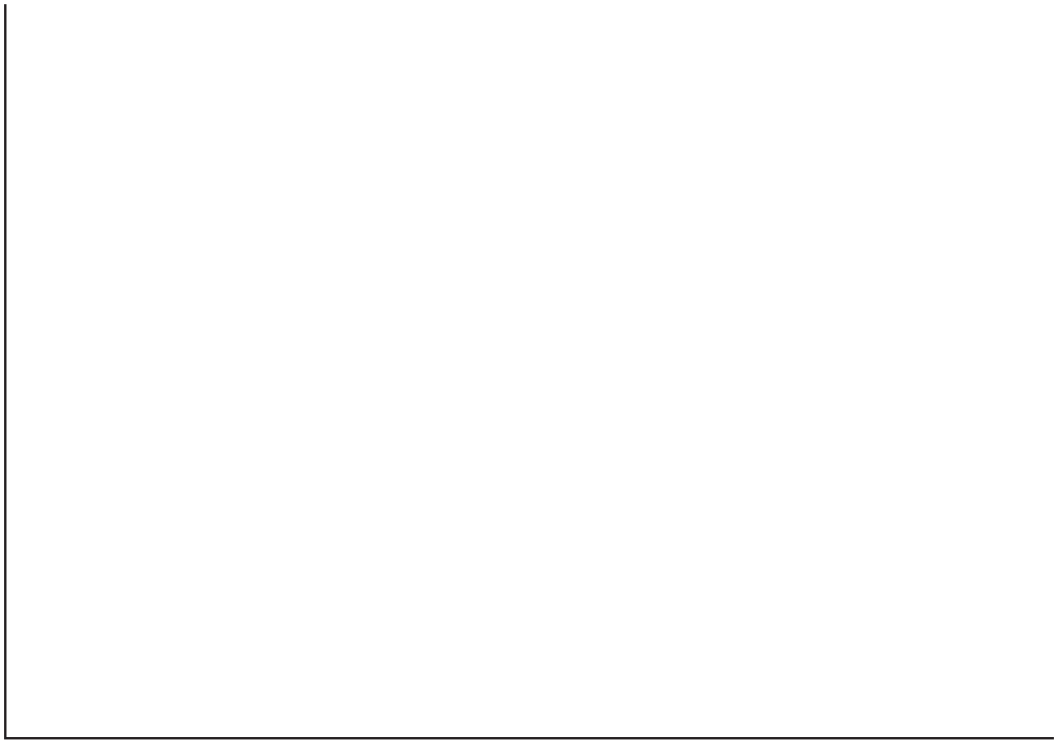
- ☒ **A** in long-run equilibrium
- ☒ **B** making normal profit because average revenue is greater than average cost
- ☒ **C** making supernormal profit because marginal cost equals marginal revenue
- ☒ **D** productively efficient

(b) The government subsidises dental care in the UK through the National Health Service (NHS). There has been a large decrease in the work carried out by NHS dentists. Up to 90% of practices are not accepting new NHS patients.

(Source: adapted from https://www.theguardian.com/society/2023/jul/14/mps-demand-urgent-reform-nhs-dental-services-report)

Draw an externalities diagram to identify the welfare gain area from the consumption of dental care in the UK.

(4)



(Total for Question 3 = 5 marks)

Sources for use with SECTION B

Read Figure 3 and the following Extracts (E to G) before answering Question 2.

The economy of India

Figure 3: Selected economic data for India, 2006–2021

Year	GDP per capita (US$)	Human Development Index (HDI) value	% people living in absolute poverty
2006	820.0	0.611	55.1
2016	1 714.3	0.624	27.7
2021	2 238.1	0.633	16.4

(Source adapted from: https://www.statista.com/statistics/1272613/india-multidimensional-poverty-index/; https://data.worldbank.org/indicator/; UN Human Development Reports)

Extract E

135 million Indians escape absolute poverty in recent years

Absolute poverty in India, measured by the number of people living on under US$2.15 a day, has fallen dramatically over the last 15 years. The government's dedicated focus on improving access to sanitation, nutrition, cooking oil, banking services, drinking water and electricity has led to significant advances in these areas. The $2.3 million provision of subsidised cooking oil has positively transformed lives, with a 14.6 percentage points improvement in the access to cooking oil. 5

(Source adapted from: https://pib.gov.in/)

Extract F

Buffer stocks in India

The Indian government is required to maintain a buffer stock of 11 million tonnes of wheat and 10 million tonnes of rice. The grains are purchased from farmers at the minimum support price and stored in secure warehouses across the country. India, once troubled by famine, has more recently managed to remain self-sufficient in most food categories except edible oils, and is the world's largest rice exporter. Even during the global health crisis 2020-2022, when the government distributed free food to nearly 800 million people, buffer stocks ran down but not out. Farmers are encouraged to produce more without any consideration of sustainability.

(Source adapted from: https://ig.ft.com/india-population/)

Extract G

Population growth in India

"The greatest obstacle in the path of overall economic development is the alarming rate of population growth," was one Indian government minister's view in 1967. In the 1970s, the Indian government took radical measures to try to prevent population growth, with little success.

Then, in the 1980s and 1990s, India began opening up its economy to the private sector. Policymakers began viewing a growing young population in the form of the so-called demographic dividend – when a majority of a country's population is of working age (15-64 years) – as an engine for further economic development. In May 2023 India took over from China as the country with the highest population reaching 1.4 billion. However, it needs enough well-paying jobs designed to serve the modern, urban economy.

(Source adapted from: https://www.aljazeera.com/features/2023/4/18/overtaking-chinas-population-will-india-gain-or-lose)

2 (a) Using a demand and supply diagram, explain the cost of a subsidy on the market for cooking oil to the Indian government (Extract E, line 6).

(5)

SECTION B

Read Figure 1 and the following extracts (A, B and C) before answering Question 6.

Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour 5 minutes on this section.

Question 6

The market for plastic in the UK

Figure 1: Trend in the purchase of single-use plastic bags in millions, UK, 2014 to 2021

2014	2015	2016	2017	2018	2019	2020	2021
7 500	2 120	1 750	1 130	1 040	627	496	197

Extract A

10p charge continues to reduce use of plastic carrier bags

The 5p charge on single-use carrier bags was introduced in supermarkets in 2015. The charge was increased to 10p in 2021 and extended to all businesses.

The UK Environment Minister said that the plastic bag charge has ended the irrational purchase of billions of single-use carrier bags, thereby protecting our landscapes and ensuring millions of pounds are redistributed to worthy causes. This was needed as without this legislation, the market is not able to effectively manage the situation. Consumers are now in the habit of bringing reusable carrier bags when shopping.

In addition to single-use carrier bag charges, major retailers have offered bottle deposit return schemes and refillable food and cleaning product options. These provide incentives to consumers to reuse their plastic containers.

However, retailers have suggested that most customers do not wish to pay more for cleaning products in reusable packaging. With the average household income falling by 4.3% in 2023, sales of refillable cleaning products are expected to fall from 200 000 to 130 000 this year.

(Source adapted from: https://www.circularonline.co.uk/news/)

Extract B

Plastic packaging tax

Food manufacturers have criticised the implementation of a new UK environmental tax, warning it will force them to increase prices for consumers.

The 2018 tax was designed to provide incentives to businesses to use recycled plastic in packaging. Businesses manufacturing or importing 10 tonnes or more a year of plastic packaging that contains less than 30% recycled plastic are taxed at £200 a tonne. Plastic packaging containing more than this will be exempt from the tax.

Helene Roberts, Chief Executive of Robinson Packaging, said increased prices for the consumer would be an unintended consequence of the tax. "It will just create inflationary pressures within the supply chain and firms may need to pass this on." A wide range of businesses are affected by the new tax, including retailers importing items such as bin liners, drink bottles and carrier bags. Food manufacturers are particularly impacted as the industry uses 40% of packaging in the UK.

(Source adapted from: https://www.ft.com)

Extract C

Single-use cups

An estimated 2.5 billion single-use cups are used in the UK every year by consumers buying coffee from chains and cafes, creating approximately 25 000 tonnes of waste. Research has found that while a 25p charge on single-use cups increases the use of reusable coffee cups in coffee shops, a discount on reusable coffee cups has no impact at all on their use.

A 25p charge on single-use cups increases the use of reusable coffee cups by 3.4%. Environmental messaging in cafes, for example posters about litter, increases the use of reusable coffee cups by 2.3%. The availability of reusable cups leads to an increase of 2.5% whereas the distribution of free reusable cups leads to a further increase of 4.3%.

"While the increases for individual measures were modest, the greatest behavioural change was when the measures were combined," said Wouter Poortinga of Cardiff University.

(Source adapted from: https://www.theguardian.com/environment/2017/mar/30/)

(d) With reference to Extract C, explain how incentives to use reusable coffee cups may lead to a fall in demand for single-use cups.

(6)

SECTION A

Read Figures 1 to 3 and the following extracts (A, B and C) before answering Question 1.

Answer ALL Questions 1(a) to 1(c), and EITHER Question 1(d) OR 1(e).

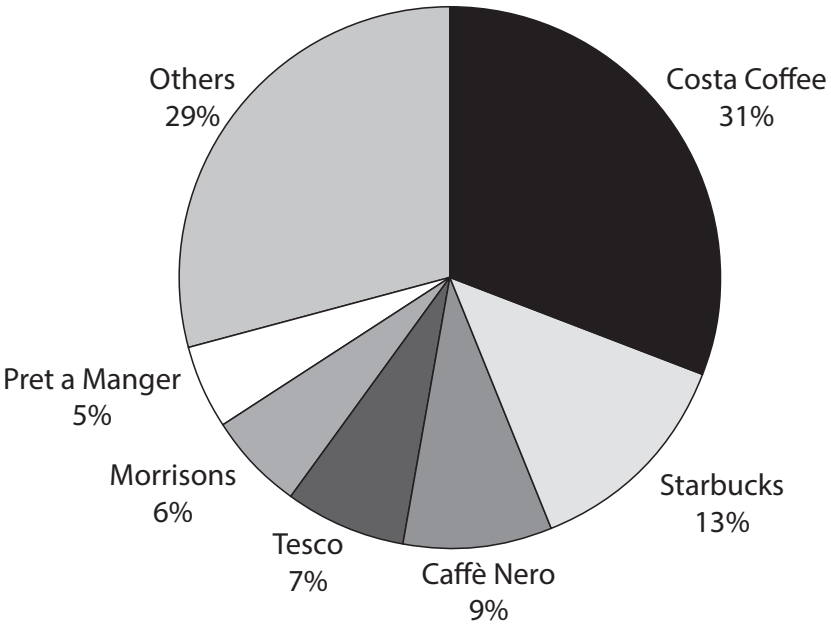
Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 1

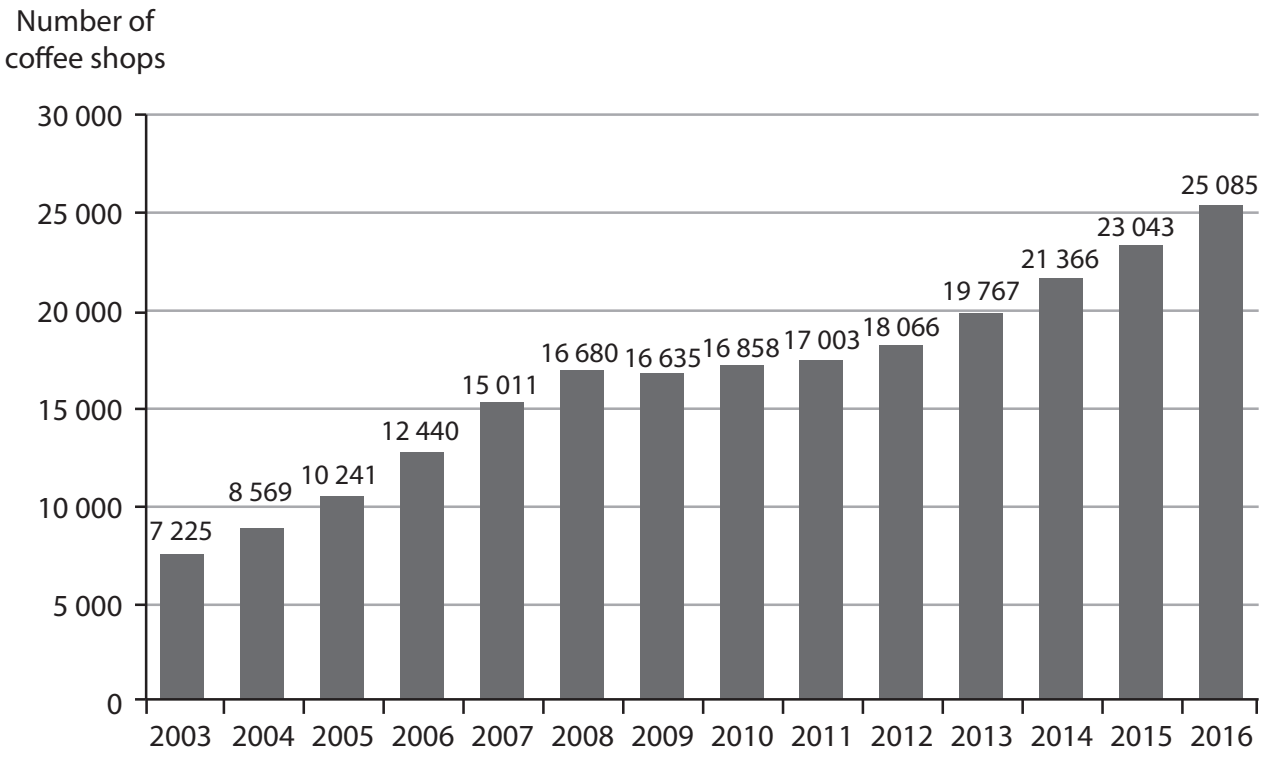
Branded coffee shops

Figure 1: Market share of UK branded coffee shops, 2015, percentages



(Source: http://metro.co.uk/2015/12/14/the-uks-most-popular-coffee-shop-has-been-revealed-5564569/)

Figure 2: Number of Starbucks coffee shops worldwide, 2003–2016



(Source: https://www.statista.com/statistics/266465/number-of-starbucks-stores-worldwide/)

Figure 3: Price comparison in selected London coffee retailers, February 2017

Coffee style	Starbucks	Costa Coffee	Caffè Nero	Greggs	McDonald's
Espresso Double	£2.00	£2.00	£1.70	£1.65	£0.99
Latte Medium	£2.60	£2.50	£2.50	£1.80	£1.79
Latte Large	£2.80	£2.70	£2.80	£2.10	£2.09

(Source: data collected from coffee shops in Holborn, London on 25 February 2017)

Extract A

Starbucks in Britain – a loss-making business?

Coffee shops are among the most profitable parts of the food and drink industry, and few are doing quite as well as Starbucks, a US-based transnational company. Starbucks may be complaining of adverse global market conditions but that did not stop the world's biggest coffee chain from reporting record annual profits in 2016. It made a profit of almost US$4.2 billion for the year, up 16% on 2015. That was mainly the result of a strong performance in its biggest market, America, where revenue rose 11%. The fastest growth was in the China and Asia Pacific region, with revenue up 23%. Howard Schultz, the CEO of Starbucks, said its Chinese coffee shops were the most efficient and profitable. While Starbucks still makes most of its profit in the US, Mr Schultz has said expansion in China will secure its future for "decades to come" and announced plans to more than double the number of shops in China to 5 000 by 2021.

However its British subsidiary, at first glance, appears to be doing less well. It has announced its first ever profit in Britain in 2015 – of just £1 million – despite opening its first coffee shop in the UK in 1998. It now has 849 UK outlets. The main reason why Starbucks has reported persistent losses in the UK is not due to a lack of demand for its coffee, but to minimise its tax bill. It is claimed that some of Starbucks' revenue earned in the UK is transferred to its Dutch subsidiary, which is charged lower rates of tax.

Starbucks is not finding life as easy in Britain as in the USA. It faces competition from home-grown chains such as Costa and Caffè Nero. Accusations of tax avoidance have also damaged Starbucks' sales to the benefit of its competitors. A survey found that a third less people rated Starbucks as their preferred coffee shop than they did before the tax-avoidance allegations were first published.

These issues have forced Starbucks to change its strategy. It has slowed down its expansion plans in the UK and has closed 67 underperforming coffee shops over the past year. It has also tried to repair its reputation by transferring its European headquarters from Amsterdam to London.

(Sources: adapted from *The Economist* 14 February 2015 http://www.economist.com/news/business-and-finance/21643271-tax and Starbucks company report 2016 and http://s21.q4cdn.com/369030626/files/doc_financials/2015/Starbucks-Fiscal-2015_Financial-Highlights.pdf)

Extract B

Tax on disposable coffee cups?

Two and a half billion disposable cups are thrown away every year in the UK, that is, seven million every day. Only one in 400 is recycled. The UK Environment Minister has suggested that a coffee cup tax could work in a similar manner to the plastic bag charge. The 5 pence a bag charge has led to an 85% reduction in the number of bags being given out since October 2015. It is estimated that introducing a tax on disposable coffee cups would cut usage by two billion every year. One environment spokesperson, Kate Parminter, said: "We've seen how dramatically a small charge has affected public behaviour when it comes to the plastic bags and it is clearly time to extend it to coffee cups. Most people purchase a tea or coffee and throw away the cup without even thinking about it, but a charge would increase our awareness of the environmental impact."

In response, another MP welcomed her comments but said he did not believe a tax was the solution. He said: "My initial reaction is charging 5p or 10p for the cup will not work. It will not encourage people to take their own cups in if a coffee goes up from £2.60 to £2.65. I suspect a more technological answer is what we need – either the composition of the disposable cups being changed so they're more easily recyclable, or changing the technology in the recycling."

Disposable coffee cups contain a plastic coating inside the cups which prevent them from becoming soggy, making them difficult to recycle. There are just two specialist facilities in the UK that have the required equipment to separate plastic from paper for recycling. Almost no recycled paper is used in the production of disposable cups, meaning that some 43 000 trees must be cut down annually to keep up with the demand. CO_2 emissions of around 83 000 tonnes are generated every year for their production.

(Sources: adapted from http://www.independent.co.uk/news/uk/politics/disposable-coffee-cups-could-be-taxed-like-plastic-bags-environment-minister-says-a6938126.html 05/09/16 and https://www.cchdaily.co.uk/lib-dems-call-5p-plastic-bag-tax-coffee-cups)

Extract C

German city of Freiburg takes action on cutting the use of disposable coffee cups

The 'Freiburg cup', made from dishwasher-proof plastic, can be reused hundreds of times. Cups are issued with a one-euro deposit, and can be returned to any of the participating coffee shops in the German city. The cups, which are provided to coffee shops by local councils, are washed in the cafés and bakeries that have signed up to the scheme before being reused. 56 coffee retailers have signed up, and 10 000 cups are being used.

One of the main obstacles facing a wider-reaching scheme, however, is the number of café chains in Germany that are unwilling to use unbranded multi-use cups, particularly Starbucks and McDonald's. Starbucks already offers a discounted coffee for customers with a multi-use cup, but only if it is bearing the unmistakable Starbucks logo.

(Source: adapted from http://www.dw.com/en/germanys-love-for-coffee-to-go-leaves-environmental-groups-demanding-action/a-36689719)

(c) Examine the advantages of using an indirect tax as a means of reducing the use of disposable coffee cups.

(8)

SECTION B

Read the following Figures (1 to 2) and Extracts (A to B) before answering Question 6.

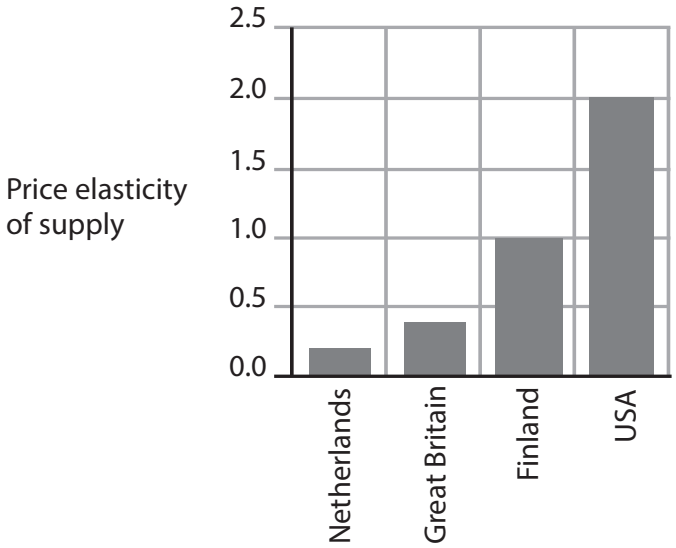
Answer ALL Question 6 (a) to 6 (e) and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

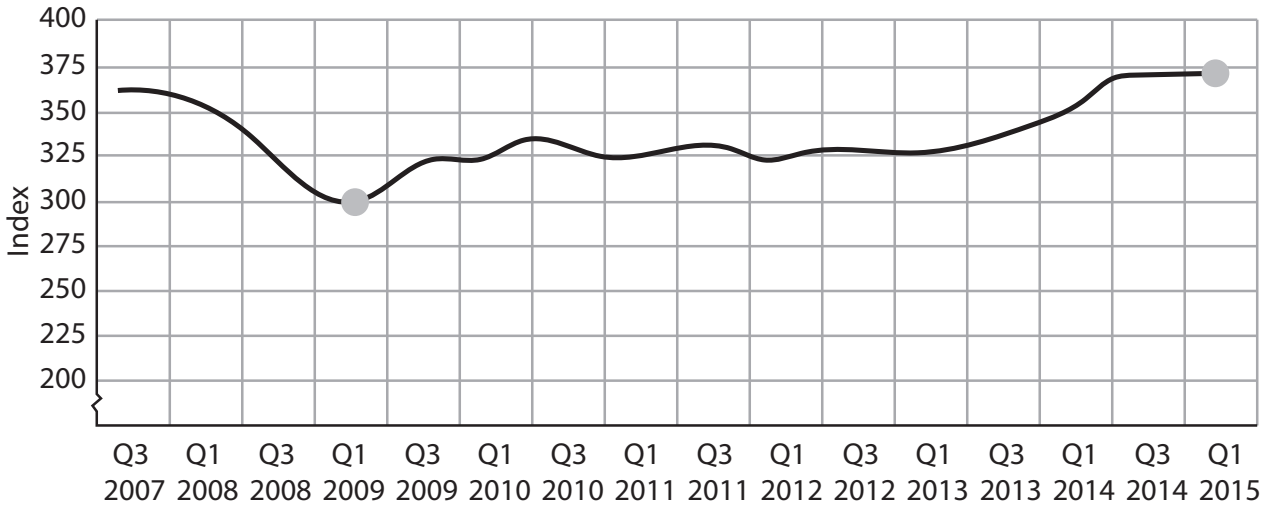
The market for housing

Figure 1 – Estimates of the price elasticity of supply of new housing, selected countries



(Source: adapted from Caldera Sánchez, A. and Å. Johansson (2011), "The Price Responsiveness of Housing Supply in OECD Countries", Figure 3, OECD Economics Department Working Papers, No. 837, OECD Publishing. http://dx.doi.org/10.1787/5kgk9qhrnn33-en)

Figure 2 – Index of UK house prices (1993 = 100)



(Source: http://www.nationwide.co.uk/about/house-price-index/download-data#~)

Extract A

Problems facing UK first time buyers

Over a third of aspiring first time buyers in the UK have given up hope of ever being able to save for a deposit to buy a property, new research has found. A deposit is the minimum amount that must be paid upfront when buying a property, which is a proportion of the price of the property.

The UK Government has a Help to Buy scheme designed to help people buy a home. The government subsidises the mortgage (loan) needed to buy a property, so buyers require a smaller amount saved as a deposit. Under this scheme, first time buyers need as little as a 5% deposit to qualify for a mortgage. This is due to end in the first few months of 2017. The research from mortgage insurer Genworth says this will mean a return to 20% deposits, which would see the average time needed to save for a deposit rise from three years to over 10 years.

"Trying to buy your first home in the current climate is like chasing a runaway train. Even with good salaries that could comfortably support a mortgage, thousands of aspiring first time buyers can only save modest sums, especially those who are already paying rent. This deposit trap is why many feel they are left with the all or nothing choice of borrowing from family or waving goodbye to ever owning a home," said Simon Crone, a vice president at Genworth.

"Help to Buy has significantly improved access to mortgages with deposits that are actually realistic to save. The numbers using the scheme may be modest, but it has made significant inroads in the short-term to boost access at the lower end of the property market," he pointed out.

(Source: adapted from http://www.propertywire.com/news/europe/uk-first-time-buyers-201409309641.html September 2014)

Extract B

Housing and flood defences

A radical new approach to housing and a £2.3 billion of investment in flood defences were announced as part of the UK Government's new National Infrastructure Plan 2014.

One key proposal is for the government to plan, build and sell homes. An initial programme on a government-owned former airfield near Cambridge will see the development of 10 000 homes. This approach will fast track the development by providing certainty and making new homes available more quickly.

The government will make the initial investment but expects that later costs will be met through the sale of land and homes. It will also evaluate the feasibility and economic effects of rolling out this model on a wider scale, to support and accelerate housing supply.

The plan also commits to £2.3 billion of capital investment to over 1400 flood defence projects in a 6-year programme of investment. As a result, over 300 000 homes will be better protected and over £30 billion of economic damages prevented. Major projects that will benefit include £42 million for the Oxford Flood Alleviation Scheme, £80 million for the Humber Estuary and over £17 million for Tonbridge, Yalding and the surrounding communities.

(Source: adapted from https://www.gov.uk/government/news/ambitious-plans-for-housing-flood-defence-and-roads-set-out-in-national-infrastructure-plan-2014)

(b) With reference to Extract A, assess the likely impact of the Help to Buy scheme on the market for rented properties in the UK.

(10)

SECTION A

Read Figures 1 and 2 and the following extracts (A, B and C) before answering Question 1.

Answer ALL Questions 1(a) to 1(c), and EITHER Question 1(d) OR 1(e).

Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 1

Turkey – an emerging economy

Figure 1: Turkey's central bank lending rate, percent, 2013–2018

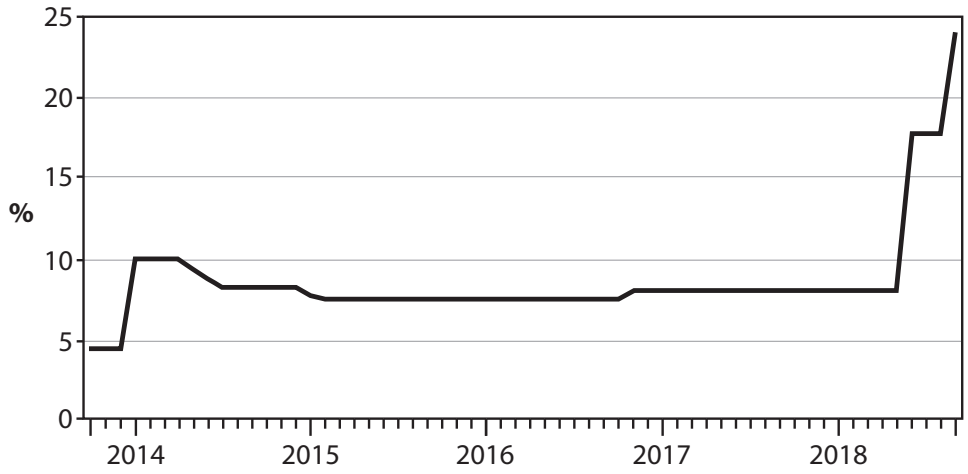
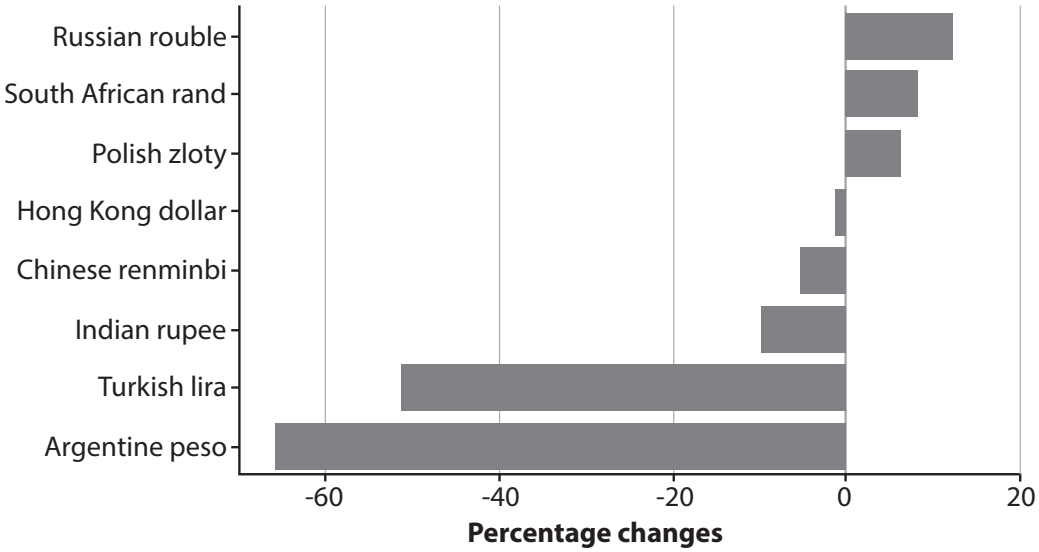


Figure 2: Selected emerging economy exchange rates, percentage change against the US dollar: January 2018 compared to January 2016.



(Source adapted from: FT.com)

Extract A

Can Turkey's central bank avoid another rate rise?

At an annual rate of 25%, Turkey's inflation is alarming. However, it may have peaked. This may be a turning point for the economically struggling country, whose currency (the Turkish lira) has lost nearly a third of its value against the US dollar in 2018. The central bank may be able to avoid tightening monetary policy further, as a severe economic adjustment is already well under way. Turkey is highly indebted in foreign currency. The Turkish government takes measures against excessive appreciation or depreciation of the Turkish lira to reduce financial stability risks. The financial market faces difficulties in trying to restore foreign investors' confidence.

Consumer prices increased by 2.7% in October 2018, a much lower rate than the 6.3% recorded in September 2018. The lira has stabilised, having risen 16% since the central bank raised interest rates by 6.25 percentage points. However, the government wants lower borrowing costs to fuel credit growth and economic expansion. Timothy Ash at a London investment bank says at this point it's "illogical" to raise interest rates again in Turkey. That's because Turkey's economy is already experiencing a severe slowdown.

In the long term Turkey's economic growth is expected to be above that of other emerging markets such as Brazil, Russia and China. Turkey's private sector is resilient. Between 2018–50 we expect Turkey to grow by an annual average of 3.1%. Brazil is expected to grow by an annual average of 2.1%, Russia by 1.6% and China by 2.8%. GDP growth will nevertheless be well below that recorded in 2004–07 and 2010–15. Average growth in GDP per head will be substantially lower, mainly reflecting the expected rise in the total population.

(Source adapted from: https://ftalphaville.ft.com/2018/11/06/1541508141000/Can-Turkey-s-central-bank-avoid-another-rate-hike-/. 6 Nov 2018 Colby Smith
and one sentence The president wants lower borrowing costs to fuel credit growth and economic expansion from https://www.theguardian.com/world/2018/aug/07/turkey-urged-to-announce-emergency-interest-rate-hike Larry Elliott 7/8/18 and
http://country.eiu.com/article.aspx?articleid=157174199&Country=Turkey&topic=Economy&subtopic=Long-term+outlook&subsubtopic=Summary)

Extract B

Turkey aims to bin the plastic bag

You get a free plastic bag whenever you go to a shop, even if it is just to buy a loaf of bread or a chocolate bar. In Turkey, plastic bags are everywhere, with millions being thrown away, and their use is causing a growing environmental problem.

In Istanbul, the country's biggest city with about 12 million people, around 10 000 tonnes of waste are being collected every day. Plastic bags and other plastic waste make up 950 tonnes, or almost 10%, of the total waste.

The Turkish government said it was looking at ways to discourage the consumption of single-use plastic bags. One possible step currently under review is a ban of the black bags that are said to contain carcinogens. Another is that the state may raise taxes on plastic products, which could lead to supermarkets charging consumers for the bags. In Corlu, a town north-west of Istanbul, a local environmental group distributed 20 000 canvas bags to shoppers in one month. In some parts of Turkey, plastic bags are completely banned, with heavy fines for both firms and consumers who use them.

(Source adapted from: tseibert@thenational.ae https://www.thenational.ae/world/europe/turkey-aims-to-bin-the-plastic-bag-1.530059 accessed 11/11/18)

Extract C

Istanbul's third airport set to be the busiest in the world

Istanbul's third airport is being constructed over an area of 76.5 million square metres, to the north of Istanbul. When complete, the new airport will have six runways and have an annual passenger capacity of up to 200 million people, making it potentially the world's busiest airport. "This airport is going to be the most important hub between Asia and Europe," said one business leader.

The airport design includes high vaulted ceilings and spacious, modern and efficient design – and its tulip-shaped air traffic control tower won the 2016 International Architecture Award. It uses mobile applications and artificial intelligence for customers, is energy efficient and has a high-tech security system. The site employs 36 000 people and is estimated to cost the equivalent of £10 billion. However, the rush to meet the deadline set by the Turkish government is a major cause of accidents on the construction site, according to the construction workers' union.

(Source adapted from: https://www.lonelyplanet.com/news/2018/08/08/istanbuls-huge-new-airport/ and https://www.voanews.com/a/istanbul-to-unveil-new-airport-seeks-to-be-world-s-biggest/4632308.html)

(c) Discuss the likely success of policies to reduce the consumption of single-use plastic bags in cities such as Istanbul.

(12)

SECTION B

Read Figures 1 and 2 and the following extracts (A to C) before answering Question 6.

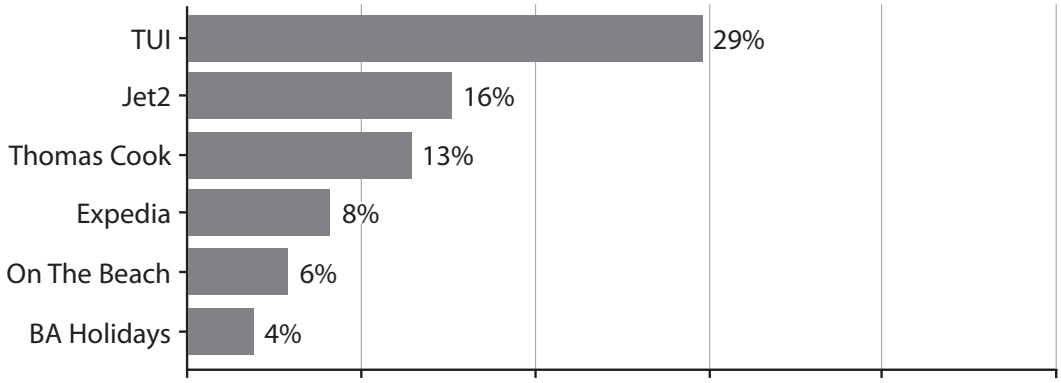
Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 6

The travel and tourism industry

Figure 1: Package holiday market share of the six largest providers, booked by UK residents, 2019



(Source adapted from: https://knowledge.sharescope.co.uk/2019/10/16/finding-companies-that-control-their-own-destinies/The Times/ATOL)

Figure 2: Jet2 package holiday prices to Sorrento

Price before Thomas Cook shutdown

2 Adults for 7 Nights from Monday 25 May 2020

- Half Board
- 1 x Premium Double or Twin room
- Return flights from Edinburgh
  View flight times
- 22 kg Bag Allowance
- 10 kg Hand Baggage
- ATOL Protected
- Coach Transfers

Holiday price from **£1,576** Per person price **£788**

Price 12 hours after Thomas Cook shutdown

2 Adults for 7 Nights from Monday 25 May 2020

- Half Board
- 1 x Premium Double or Twin room
- Return flights from Edinburgh
  View flight times
- 22 kg Bag Allowance
- 10 kg Hand Baggage
- ATOL Protected
- Coach Transfers

Holiday price from **£1,648** Per person price **£824**

Data accessed: 22nd and 23rd September 2019

Extract A

Marginal productivity of cabin crew

Cabin crew are responsible for loading passengers and providing in-flight meals. United Airlines is planning to reduce the number of its cabin crew members onboard international flights. The airline currently operates its planes with one more cabin crew member than its competitors. The marginal productivity of this additional crew member may be low. By reducing the number of its cabin crew members United Airlines will be able to operate more efficiently and compete more effectively.

(Source adapted from: https://simpleflying.com/united-airlines-to-reduce-number-of-crew-on-international-flights/)

Extract B

Thomas Cook's environmental impact

Thomas Cook Group plc's operations included its airline and 560 high street travel agents providing flights, hotels and package holidays.

The environmental impact of the travel industry is significant. It accounts for 8% of all global carbon emissions. Thomas Cook recognised the risks presented by climate change and actively engaged in reducing their airline emissions. Its plans included using more efficient aircraft and using lower-carbon fuel. In 2018, Thomas Cook was included in the top 10 of the world's most fuel-efficient airlines.

(Source adapted from: https://www.thomascookgroup.com/investors/insight_external_assest/Thomas+Cook+Sustainability+Report+2018.pdf)

Extract C

Why did Thomas Cook shut down?

Thomas Cook Group plc ceased trading on 23 September 2019. The collapse of Thomas Cook left 600 000 travellers stranded overseas and approximately 21 000 worldwide employees were left without a job.

Thomas Cook's management said that the failure of rescue talks between banks, shareholders and the UK Government meant it had no choice but to shut down the business.

But in truth the tour operator's problems go back much further. A disastrous merger in 2007, increased debts, the internet revolution in holiday booking and Brexit uncertainty all contributed to the failure of the business.

In 2007 it merged with MyTravel. Thomas Cook directors had an objective of rapid company growth over short-term profitability. The merger was supposed to create a European giant, promising £75 million-a-year cost savings and a springboard to challenge emerging internet rivals. In reality, Thomas Cook was merging with a company that had only made a profit once in the previous six years, and the deal left the Group with huge debts. In May 2019, the firm reported a £1.5 billion loss.

The role of the management in Thomas Cook's collapse is being investigated by the UK Government. Thomas Cook executives' salaries and bonuses have been questioned. Directors received salaries totalling £20 million in the five years before its collapse. The Chief Executive Officer (CEO) earned a £500 000 cash bonus in 2017 and about £8.5 million in his five years with the company. It seems that around £4 million of this was in the form of shares. The share price reached £1.46 in 2018, but each share is now worthless.

The CEO said that the directors had worked "exhaustively" to rescue Thomas Cook and create a long-term turnaround strategy. "It is a matter of profound regret to me and the rest of the board that we were not successful."

The UK prime minister admitted that the government refused to grant £150 million as a subsidy to help rescue Thomas Cook in the short run. The UK prime minister stated: "Clearly, that is a lot of taxpayers' money and sets up, as people will appreciate, a moral hazard in the case of future such commercial difficulties that companies face. I have questions about whether it's right that the directors, or whoever, the board, should pay themselves large sums when businesses can go down the tubes like that. One is driven to reflect on whether the directors of these companies are properly incentivised to sort such matters out".

(Source adapted from: https://www.theguardian.com/business/2019/sep/23/thomas-cook-as-the-world-turned-the-sun-ceased-to-shine-on-venerable-tour-operator

and https://www.ft.com/content/a7dd2554-de23-11e9-b112-9624ec9edc59)

(d) With reference to Extract C, discuss the proposed government subsidy to prevent Thomas Cook from reaching its shut-down point.

(12)

Sources for use with SECTION B

Read Figure 3 and the following Extracts (E to G) before answering Question 2.

The economy of India

Figure 3: Selected economic data for India, 2006–2021

Year	GDP per capita (US$)	Human Development Index (HDI) value	% people living in absolute poverty
2006	820.0	0.611	55.1
2016	1 714.3	0.624	27.7
2021	2 238.1	0.633	16.4

(Source adapted from: https://www.statista.com/statistics/1272613/india-multidimensional-poverty-index/; https://data.worldbank.org/indicator/; UN Human Development Reports)

Extract E

135 million Indians escape absolute poverty in recent years

Absolute poverty in India, measured by the number of people living on under US$2.15 a day, has fallen dramatically over the last 15 years. The government's dedicated focus on improving access to sanitation, nutrition, cooking oil, banking services, drinking water and electricity has led to significant advances in these areas. The $2.3 million provision of subsidised cooking oil has positively transformed lives, with a 14.6 percentage points improvement in the access to cooking oil. 5

(Source adapted from: https://pib.gov.in/)

Extract F

Buffer stocks in India

The Indian government is required to maintain a buffer stock of 11 million tonnes of wheat and 10 million tonnes of rice. The grains are purchased from farmers at the minimum support price and stored in secure warehouses across the country. India, once troubled by famine, has more recently managed to remain self-sufficient in most food categories except edible oils, and is the world's largest rice exporter. Even during the global health crisis 2020-2022, when the government distributed free food to nearly 800 million people, buffer stocks ran down but not out. Farmers are encouraged to produce more without any consideration of sustainability.

(Source adapted from: https://ig.ft.com/india-population/)

Extract G

Population growth in India

"The greatest obstacle in the path of overall economic development is the alarming rate of population growth," was one Indian government minister's view in 1967. In the 1970s, the Indian government took radical measures to try to prevent population growth, with little success.

Then, in the 1980s and 1990s, India began opening up its economy to the private sector. Policymakers began viewing a growing young population in the form of the so-called demographic dividend – when a majority of a country's population is of working age (15-64 years) – as an engine for further economic development. In May 2023 India took over from China as the country with the highest population reaching 1.4 billion. However, it needs enough well-paying jobs designed to serve the modern, urban economy.

(Source adapted from: https://www.aljazeera.com/features/2023/4/18/overtaking-chinas-population-will-india-gain-or-lose)

(c) With reference to Extract F, discuss the problems that might be involved with the buffer stock system in India.

(12)

SECTION B

Read the following extracts (A to D) before answering Question 6.

Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 6

The electronics industry

Extract A

Rising prices of electronics devices

Computer chips act as the "brain" in all electronic devices. Makers of electronic devices face significant increases in the price of computer chips as they try to source enough components, including games consoles, computers and smartphones. The price of some computer chips has jumped from $0.20 each to more than $1. The prices of electronic devices have risen for a range of reasons, including higher material costs and the growing popularity of home entertainment.

(Source: adapted from https://www.ft.com/content/8c718a74-cd95-4b2d-ac0e-de0682e4e3cd)

Extract B

Labour shortages in the electronics industry

Every year, highly skilled and experienced employees in the electronics industry retire. The current tight labour market has made an already difficult problem of hiring suitable engineering and computing graduates worse, especially since the nature of the industry is becoming increasingly technical. As production becomes more automated, electronics jobs are more likely to require problem solving and analysis than just assembling skills. However, artificial intelligence and other new technologies can help fill some of the skills gap. In addition, by giving hazardous, repetitive, grimy work to robots, human beings can focus on more creative, analytic tasks.

(Source: adapted from https://www.ericsson.com/en/blog/2021/12/manufacturing-problems-that-keep-ceos-awake-at-night)

Extract C

Serious concerns over merger

The Competition and Markets Authority (CMA) has said the takeover of the Cambridge-based computer chip designer Arm by its US rival Nvidia raises serious competition concerns. It has launched an in-depth investigation into the £29.5 billion deal. The CMA said the merger could reduce choice for firms reliant on computer chips, pushing up prices of products including cars, games consoles and mobile phones. In addition, severe global shortages of computer chips has disrupted the manufacture of a range of electronic goods pushing up costs for firms.

Despite this, large electronics firms benefit from economies of scale and are able to finance high-risk innovation and global advertising.

(Source adapted from: https://www.theguardian.com/business/2021/aug/20/watchdog-expresses-concerns-over-nvidias-takeover-of-uk-chip-designer-arm)

Extract D

The growing problem of electronic waste

Electronic waste is the fastest growing element of the world's household waste problem. The problem in the UK is particularly bad. The country produces 24.9 kg a person a year – nearly 10 kg more than the EU average. In 2018, 1.2 million tonnes of electrical devices were sold in the UK, and 500 000 tonnes made it to recycling centres. Some appliances are more likely to be recycled than others. The recycling rate for big appliances, such as fridges and cookers, is about 80%. Of small appliances, barely one in five makes it to the recycling centre. As items such as toasters, hairdryers and headphones fit into household bins, they are not often taken to a recycling centre. This causes many problems, such as hazardous substances contaminating soil, water pollution and other external costs.

Policy makers have a long list of options to combat this problem including stricter regulation, environmental education, taxation and financial incentives. In some countries, for example, household rubbish is weighed and recycling initiatives are subsidised.

(Source adapted from: https://www.ft.com/content/26e1aa74-2261-11ea-92da-f0c92e957a96)

(e) With reference to Extract D, discuss possible methods of government intervention to reduce electronic waste.

(15)

(Total for Question 6 = 50 marks)

TOTAL FOR SECTION B = 50 MARKS

SECTION B

Read the following Figures (1 to 2) and Extracts (A to B) before answering Question 6.

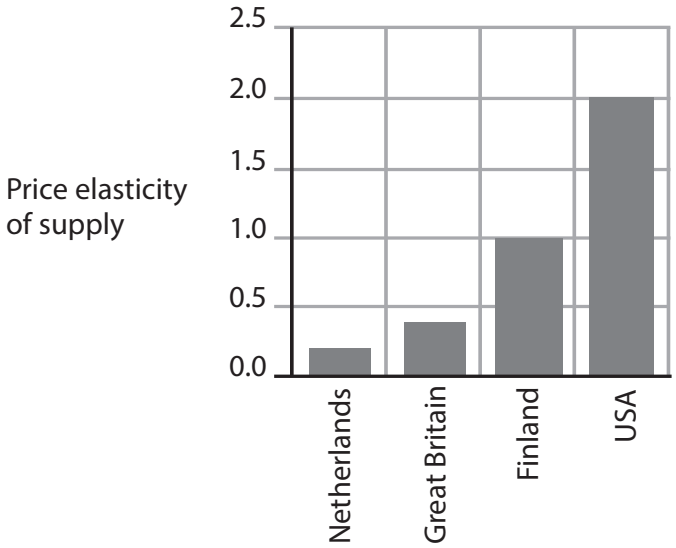
Answer ALL Question 6 (a) to 6 (e) and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

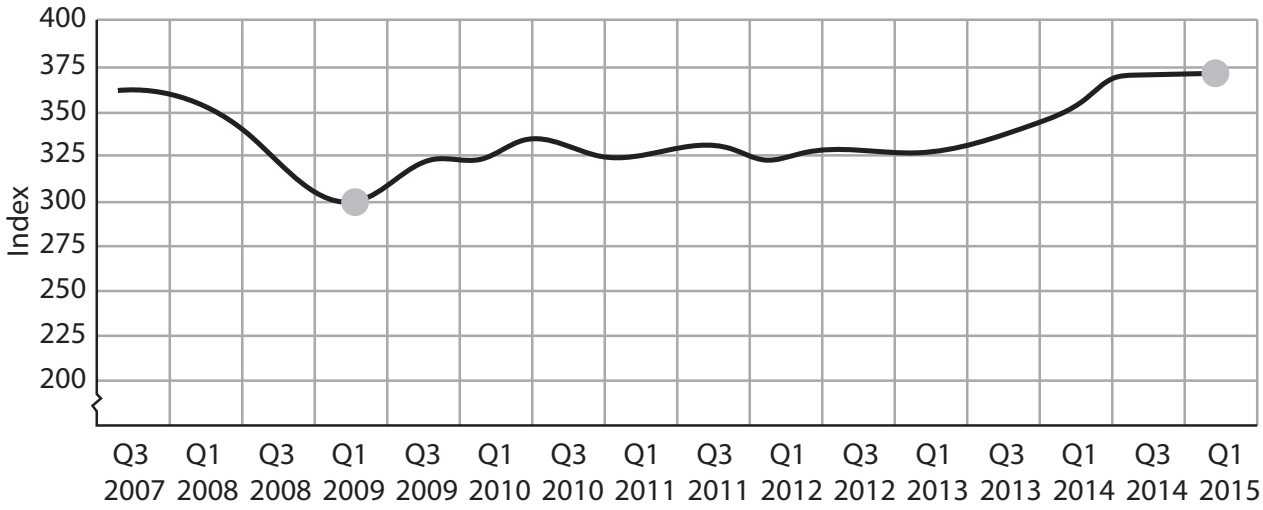
The market for housing

Figure 1 – Estimates of the price elasticity of supply of new housing, selected countries



(Source: adapted from Caldera Sánchez, A. and Å. Johansson (2011), "The Price Responsiveness of Housing Supply in OECD Countries", Figure 3, OECD Economics Department Working Papers, No. 837, OECD Publishing. http://dx.doi.org/10.1787/5kgk9qhrnn33-en)

Figure 2 – Index of UK house prices (1993 = 100)



(Source: http://www.nationwide.co.uk/about/house-price-index/download-data#~)

Extract A

Problems facing UK first time buyers

Over a third of aspiring first time buyers in the UK have given up hope of ever being able to save for a deposit to buy a property, new research has found. A deposit is the minimum amount that must be paid upfront when buying a property, which is a proportion of the price of the property.

The UK Government has a Help to Buy scheme designed to help people buy a home. The government subsidises the mortgage (loan) needed to buy a property, so buyers require a smaller amount saved as a deposit. Under this scheme, first time buyers need as little as a 5% deposit to qualify for a mortgage. This is due to end in the first few months of 2017. The research from mortgage insurer Genworth says this will mean a return to 20% deposits, which would see the average time needed to save for a deposit rise from three years to over 10 years.

"Trying to buy your first home in the current climate is like chasing a runaway train. Even with good salaries that could comfortably support a mortgage, thousands of aspiring first time buyers can only save modest sums, especially those who are already paying rent. This deposit trap is why many feel they are left with the all or nothing choice of borrowing from family or waving goodbye to ever owning a home," said Simon Crone, a vice president at Genworth.

"Help to Buy has significantly improved access to mortgages with deposits that are actually realistic to save. The numbers using the scheme may be modest, but it has made significant inroads in the short-term to boost access at the lower end of the property market," he pointed out.

(Source: adapted from http://www.propertywire.com/news/europe/uk-first-time-buyers-201409309641.html September 2014)

Extract B

Housing and flood defences

A radical new approach to housing and a £2.3 billion of investment in flood defences were announced as part of the UK Government's new National Infrastructure Plan 2014.

One key proposal is for the government to plan, build and sell homes. An initial programme on a government-owned former airfield near Cambridge will see the development of 10 000 homes. This approach will fast track the development by providing certainty and making new homes available more quickly.

The government will make the initial investment but expects that later costs will be met through the sale of land and homes. It will also evaluate the feasibility and economic effects of rolling out this model on a wider scale, to support and accelerate housing supply.

The plan also commits to £2.3 billion of capital investment to over 1400 flood defence projects in a 6-year programme of investment. As a result, over 300 000 homes will be better protected and over £30 billion of economic damages prevented. Major projects that will benefit include £42 million for the Oxford Flood Alleviation Scheme, £80 million for the Humber Estuary and over £17 million for Tonbridge, Yalding and the surrounding communities.

(Source: adapted from https://www.gov.uk/government/news/ambitious-plans-for-housing-flood-defence-and-roads-set-out-in-national-infrastructure-plan-2014)

Q) 6 (g) Evaluate the case for government provision of goods and services such as flood defence schemes or housing.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figure 1 and the following extracts (A and B) before answering Question 6.

Answer ALL Question 6 (a) to 6 (e), and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

The market for cigarettes

Figure 1: Price elasticity of demand - a comparison between tobacco and e-cigarettes

Price of packet of 20 tobacco cigarettes £7.70–£9.50	Price of e-cigarette kit £9.99–£19.99
Average price per tobacco cigarette 48p	Single cigarette equivalent price of an e-cigarette 7p
Price elasticity of demand for tobacco cigarettes –0.35	Price elasticity of demand for e-cigarettes –1.9

(Source: adapted from https://www.blucigs.co.uk/united-kingdom/kits/all-kits)

Extract A

Government intervention on tobacco

There was a time when smoking was fashionable. Television and magazine advertisements glorified smoking. Everyone from your dad to your doctor smoked in all places – cars, restaurants and even hospitals.

Tobacco is still the single biggest cause of cancer in the world and the leading cause of preventable deaths. Nearly 80% of the 1 billion smokers worldwide live in low- and middle-income countries.

Bans on tobacco advertising, promotion and sponsorship can reduce tobacco consumption. Comprehensive smoking bans covering indoor workplaces, public places and public transport have been introduced in 48 countries.

Tobacco taxes are the most cost-effective way to reduce tobacco use, especially among the young and people in low-income groups. A tax increase that raises tobacco prices by 10% decreases tobacco consumption by 4% in high-income countries and 5% in low- and middle-income countries.

However, some 8 million people are expected to die each year by 2030 – because they have smoked tobacco or have been exposed to passive smoking. The use of alternative products such as electronic cigarettes (e-cigarettes) are gaining in popularity but information about their effects is uncertain. Little research has yet been done about the long-term health effects of e-cigarettes and the nicotine dispensed by e-cigarettes is highly addictive. The illegal tobacco market still counts for 1 in every 10 cigarettes consumed globally. In addition, tobacco companies still spend tens of billions of dollars each year on advertising and promoting tobacco products and sponsoring events. They continuously challenge the regulatory measures governments are taking.

(Source: adapted from http://www.who.int/topics/tobacco/en/ and http://www.who.int/mediacentre/commentaries/reducing-tobacco-use/en/)

Extract B

Free market approach

Are free markets incompatible with good health? If the solution to every problem involves banning advertising, raising prices and restricting availability, you might easily conclude that the free market is the disease and government regulation is the cure. From this perspective, the providers of food, alcohol and tobacco are determined to push the most unhealthy products on the public at the lowest prices.

Contrary to this viewpoint, the profit motive is not unhealthy. Businesses have an obvious incentive to keep their customers alive and customers have a strong incentive to seek out healthier options. Any company that can make a scientifically sound health claim gains a competitive advantage over its rivals. Health sells. In contrast, government regulation can lead to negative health outcomes. Markets can correct themselves long before government failures are even acknowledged. Over a million Britons, almost all of whom are smokers or ex-smokers, use e-cigarettes, as a less hazardous product than cigarettes and yet e-cigarettes face increased regulations and in many countries they are banned.

It is neither consistent nor ethical to prevent smokers from switching to much safer alternatives. Efforts to regulate e-cigarettes are a far greater threat to public health than the products themselves.

We argue that the interests of consumers are nearly always better advanced by the provision of accurate information and free choice than by prohibitions and regulations. The government policy of small but steady tax rises on tobacco and ever-larger warning labels is becoming less effective and leads to unintended consequences.

(Source: adapted from http://www.iea.org.uk/blog/free-market-solutions-in-health-should-be-allowed-to-flourish, Christopher Snowdon, 11th July 2013)

Q) 6 (f) Evaluate the possible advantages of a free market approach to cigarette consumption.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figure 1 and the following extracts (A to C) before answering Question 6.

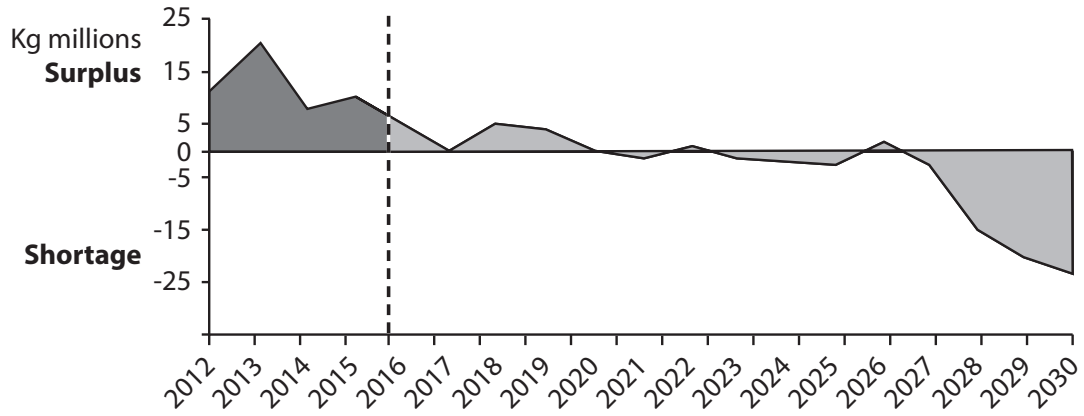
Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour 5 minutes on this section.

Question 6

Energy markets

Figure 1: Annual surplus or shortage of uranium, measured in millions of kilograms



Figures from 2016 are forecast

(Source: adapted from http://www.telegraph.co.uk/business/2016/11/20/uranium-the-unloved-metal-whose-price-is-poised-to-go-radioactiv/)

Extract A

Uranium: the unloved metal

Uranium is a fuel source for nuclear energy production. The price of uranium has fallen to a 13-year low. Uranium is a relatively common metal but locating it in the right concentrations can be difficult. Australia has the biggest known resource of uranium, followed by Kazakhstan. Kazakhstan's production has increased significantly since 2007, accounting for a large proportion of the surplus of this metal. Given the large stockpiles of uranium some firms have ceased production.

The biggest impact on the uranium market has been the devastating accident at the nuclear power station in Fukushima, Japan, in 2011. The accident caused a leak of radiation. The accident reduced confidence in the entire nuclear industry, as high doses of radiation leaks increase the risk of cancer. In addition the high cost of safely storing radioactive waste has delayed the building of new nuclear power stations. Japan initially closed all of its 50 nuclear power stations which reduced the demand for uranium. But it has since concluded that nuclear power must be part of its mix of energy suppliers.

Despite this setback in 2016 work started on a new uranium mine in Spain to meet the expected rise in demand for the metal. Uranium is a controlled material, so mining companies have to comply with many regulations before opening a new mine. When it opens in 2018, this will be the only uranium mine in Europe, producing 2.2 million kilos a year. It has been in development for more than a decade.

Most developed countries, with the notable exception of Germany, have concluded that nuclear power is an essential part of their energy supply. The US and UK are committed to building new nuclear power stations, the latter providing a £30 billion subsidy to build a new nuclear plant at Hinkley Point. China is also building a further 60 nuclear power stations.

Supporters of nuclear power say it provides a reliable source of energy at a time when the world's population is increasing, unlike solar power and wind power which both vary with the weather. In addition they argue that no country can significantly reduce carbon emissions, which are causing climate change, without nuclear. France and the UK have committed themselves to shut down all coal-fired power stations by 2025. So demand for uranium over the next two decades seems guaranteed.

(Source: adapted from Uranium: the unloved metal whose price is poised to go radioactive, Jon Yeomans, The Telegraph, 20 November 2016 http://www.telegraph.co.uk/business/2016/11/20/uranium-the-unloved-metal-whose-price-is-poised-to-go-radioactiv/)

Extract B

Irrational consumers pay the price

The UK Government has announced that it might introduce maximum price controls on energy used by households.

The UK's largest energy suppliers are braced for what could be the industry's most significant government intervention following a decade of rising energy bills and low numbers of consumers switching between energy providers.

The Prime Minister promised to intervene because the energy market is "manifestly not working" for consumers. Energy prices have risen by 158% in the last 15 years, and four million households, especially those on low incomes, are still on the most expensive energy rates.

Some energy analysts have warned the Government against taking a highly interventionist approach that could undermine the energy market and leave customers paying higher prices in the future.

(Source: adapted from http://www.telegraph.co.uk/business/2017/03/22/governments-pledge-cut-energy-prices-risks-leaving-consumers/)

Extract C

The economics of climate change

Rising carbon dioxide emissions result from the increase in the use of coal, gas and oil in transport and for energy production. In addition, deforestation, food production and processing methods make the problem worse. These carbon emissions are causing a rise in global average temperatures, known as climate change. Climate change could cause hundreds of millions of people to suffer hunger, water shortages and coastal flooding.

Three elements of policy are required for an effective global response to reduce carbon emissions. The first is the pricing of carbon, implemented through tax, trading pollution permits or regulation. The second policy is to support innovation and the deployment of low-carbon technologies. And the third is action to remove barriers to energy efficiency, and to inform, educate and persuade individuals about what they can do to respond to climate change.

(Source: adapted from www.sternreview.org.uk/)

Q) 6 (g) Evaluate ways in which government intervention could be used to reduce carbon emissions. Use at least one appropriate diagram in your answer.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figure 1 and 2 and the following extracts (A to C) before answering Question 6.

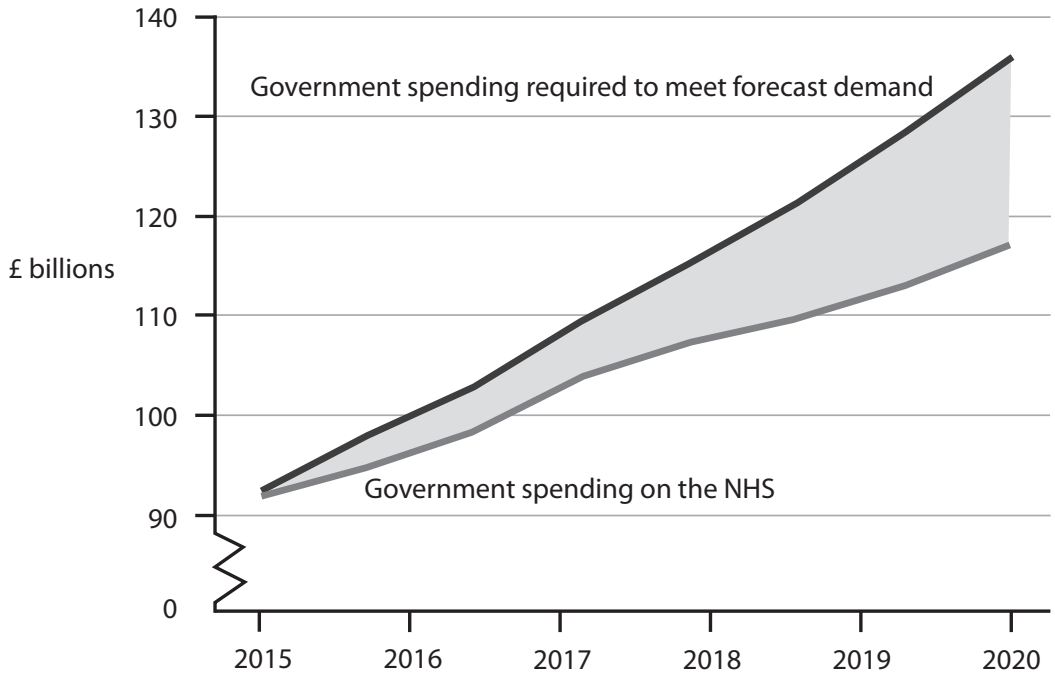
Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour 5 minutes on this section.

Question 6

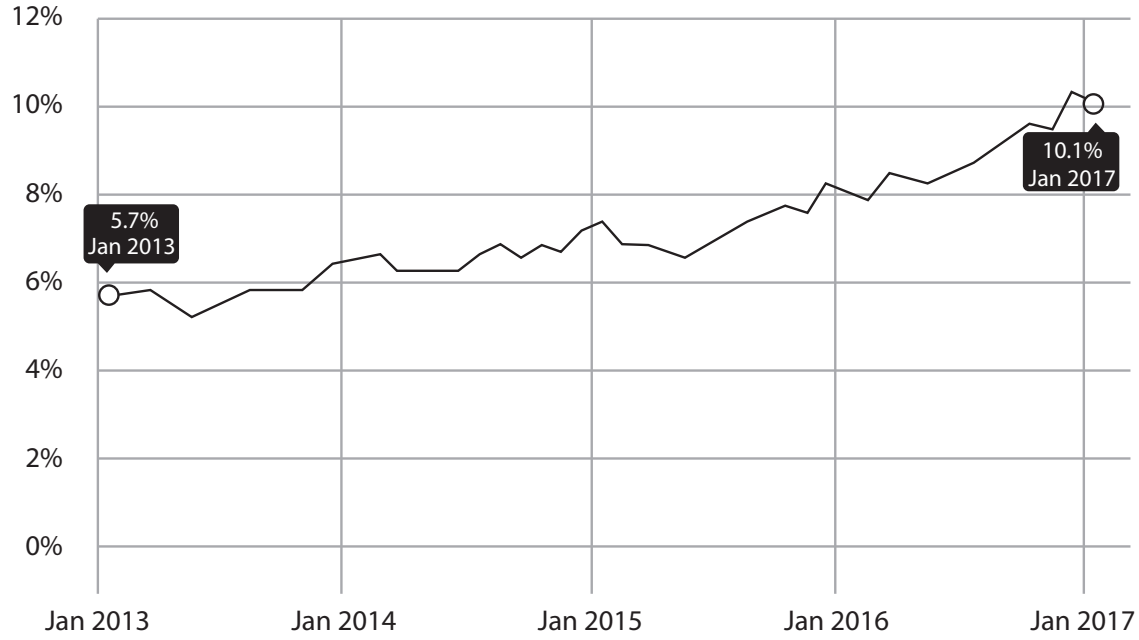
Health provision

Figure 1: National Health Service (NHS) in England: Government spending and projected funding gap, £ billions, 2015 to 2020



(Source: https://www.economist.com/news/britain/21706563-nhs-mess-reformers-believe-new-models-health-care-many-pioneered)

Figure 2: Percentage of NHS patients in England waiting over 18 weeks for non-emergency treatment



(Source: https://www.statista.com/chart/8813/more-and-more-people-made-to-wait-by-the-nhs/)

Extract A

Hospitals already full

National Health Service (NHS) managers' warned that bed occupancy rates are approaching 99% in some parts of the country, compared with recommended levels of 85%. In 2017 the number of patients waiting for non-urgent treatment passed the four million mark, the highest figure for almost a decade.

The chief executive of the NHS suggested that waiting list targets for routine operations such as hip and knee replacements would have to be sacrificed in order to protect other services, including accident and emergency (A&E) and cancer care.

However, the government has insisted waiting time targets must still be met. Recently the Chancellor awarded the NHS £2.8 billion over three years, including £1.6 billion in 2018 - less than the £4 billion which NHS officials had asked for to keep up with an ageing population and new medical technologies.

NHS managers said there was now very little spare capacity in the system, warning of shortages of paramedics, doctors, A&E consultants and nurses.

(Source: adapted from http://www.telegraph.co.uk/news/2017/12/07/hospitals-already-full-bursting-pressures-mount-warn-nhs-chiefs/)

Extract B

How health care is funded

Most countries have a mixed economy of health provision typically funded from taxation, patient fees and private health insurance.

The NHS was launched in the UK in 1948 to ensure direct state provision by the government of health care 'free at the point of use'. The NHS is mainly funded from general taxation. However, some NHS patients pay for some of their medical care, such as prescriptions to buy medicine.

In the ongoing debate about how best to fund the NHS, some people have proposed introducing a £12 charge for visiting a General Practitioner (GP) doctor. Proponents argue that such a charge would deter overuse of GP services by those who do not have genuine health needs. It would also raise additional money for the NHS and create incentives which will stimulate innovation and more choice.

Estimates suggested that a £12 charge on the 450 million visits a year to GPs could have raised enough to cover hospitals' overspend in 2016. Based on exemptions for prescriptions, 90% of patients will not be charged including the elderly, children and low income groups. There would also be administrative costs of collecting the charge and verifying exemptions. These arrangements would significantly reduce the amount a charge would generate, assuming no one paying would be dissuaded from visiting their GP.

The proportion of people in the UK taking out private health insurance (PHI) to pay for private health care has increased to 10.6%, despite significant increases in the prices of treatment in private hospitals. Some economists argue that the government should provide subsidies to encourage people to take out private health insurance. This would reduce the burden on the NHS by taking some people out of the state system. Furthermore it is argued that private health care increases choice for users, encourages competition and drives up standards of care.

A typical PHI policy for a healthy 35-year-old costs about £650 a year but this rises steeply to £2 300 for those aged 70, when claims are far more likely. The level of contribution is based on their risk of requiring health care. PHI also tends to incur high management and administrative costs due to the resources required to assess risk and claims. Also there is the possibility of market failure given asymmetric information.

(Source: adapted from https://www.kingsfund.org.uk/publications/how-health-care-is-funded)

Extract C

Public parks are a public good

Public parks are places which people can use for free to exercise or to relax. Parkrun Limited organises free weekly runs in local parks attracting hundreds of joggers per park to enjoy healthy exercise. The government is proposing to ban local authorities charging Parkrun for the use of public parks to fund the maintenance of public parks. The government considers that it is appropriate for the public to pay a reasonable sum for the private use of a facility such as a tennis court or a football pitch which may be used exclusively. However, the government does not consider it appropriate for a local authority to charge a volunteer community group 'seeking to provide a free weekly event' for the use of a public park. Parkrun share the park with other park users. Although a running course may be marked out there is no restriction on other people using the park.

(Source: adapted from © Crown Copyright Running Free – Government consultation on preserving the free use of public parks, April 2017, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/608372/Parkrun_ConDoc.pdf and http://www.telegraph.co.uk/news/2017/04/14/councils-banned-charging-runners-take-part-regular-saturday/)

Q) 6 (f) Evaluate possible ways the government could intervene to reduce the excess demand for state-funded health care.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figure 1 and 2 and the following extracts (A to C) before answering Question 6.

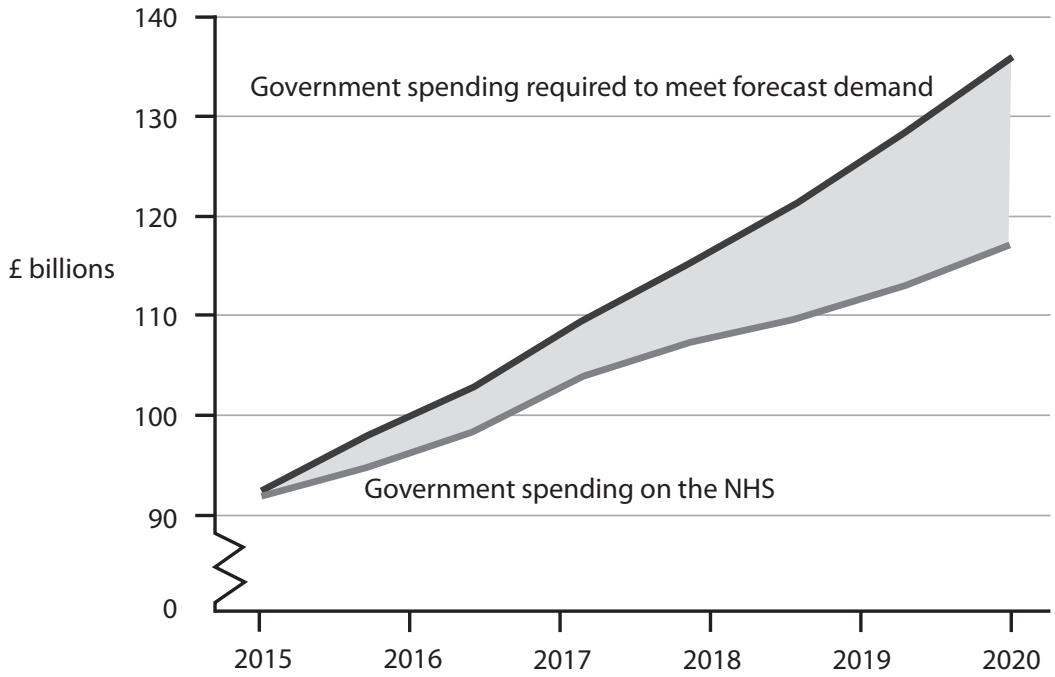
Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour 5 minutes on this section.

Question 6

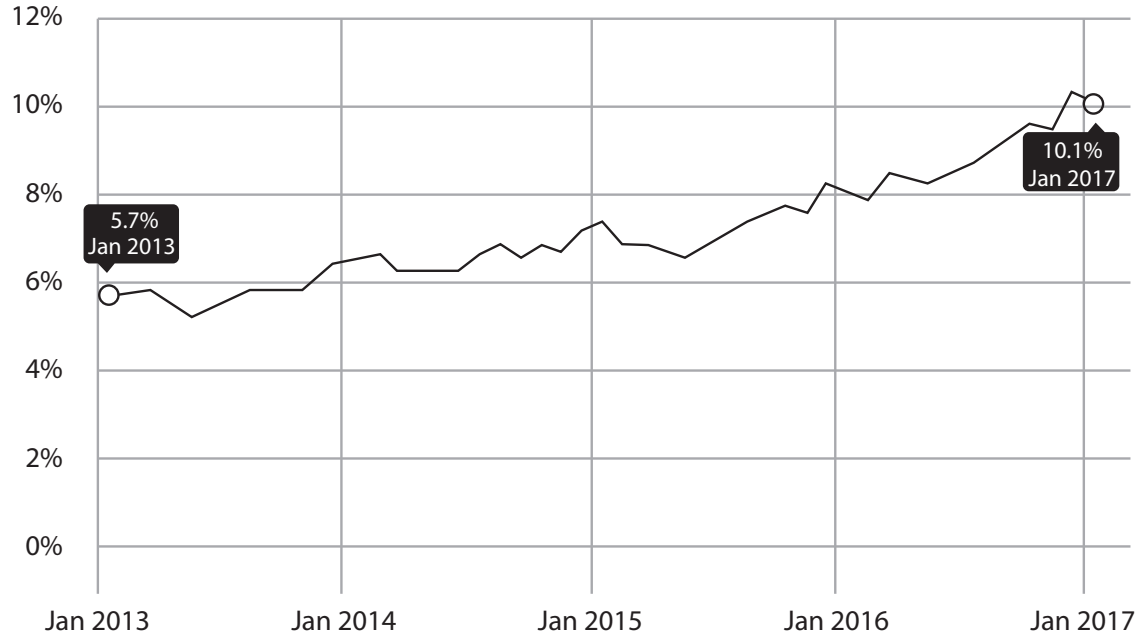
Health provision

Figure 1: National Health Service (NHS) in England: Government spending and projected funding gap, £ billions, 2015 to 2020



(Source: https://www.economist.com/news/britain/21706563-nhs-mess-reformers-believe-new-models-health-care-many-pioneered)

Figure 2: Percentage of NHS patients in England waiting over 18 weeks for non-emergency treatment



(Source: https://www.statista.com/chart/8813/more-and-more-people-made-to-wait-by-the-nhs/)

Extract A

Hospitals already full

National Health Service (NHS) managers' warned that bed occupancy rates are approaching 99% in some parts of the country, compared with recommended levels of 85%. In 2017 the number of patients waiting for non-urgent treatment passed the four million mark, the highest figure for almost a decade.

The chief executive of the NHS suggested that waiting list targets for routine operations such as hip and knee replacements would have to be sacrificed in order to protect other services, including accident and emergency (A&E) and cancer care.

However, the government has insisted waiting time targets must still be met. Recently the Chancellor awarded the NHS £2.8 billion over three years, including £1.6 billion in 2018 - less than the £4 billion which NHS officials had asked for to keep up with an ageing population and new medical technologies.

NHS managers said there was now very little spare capacity in the system, warning of shortages of paramedics, doctors, A&E consultants and nurses.

(Source: adapted from http://www.telegraph.co.uk/news/2017/12/07/hospitals-already-full-bursting-pressures-mount-warn-nhs-chiefs/)

Extract B

How health care is funded

Most countries have a mixed economy of health provision typically funded from taxation, patient fees and private health insurance.

The NHS was launched in the UK in 1948 to ensure direct state provision by the government of health care 'free at the point of use'. The NHS is mainly funded from general taxation. However, some NHS patients pay for some of their medical care, such as prescriptions to buy medicine.

In the ongoing debate about how best to fund the NHS, some people have proposed introducing a £12 charge for visiting a General Practitioner (GP) doctor. Proponents argue that such a charge would deter overuse of GP services by those who do not have genuine health needs. It would also raise additional money for the NHS and create incentives which will stimulate innovation and more choice.

Estimates suggested that a £12 charge on the 450 million visits a year to GPs could have raised enough to cover hospitals' overspend in 2016. Based on exemptions for prescriptions, 90% of patients will not be charged including the elderly, children and low income groups. There would also be administrative costs of collecting the charge and verifying exemptions. These arrangements would significantly reduce the amount a charge would generate, assuming no one paying would be dissuaded from visiting their GP.

The proportion of people in the UK taking out private health insurance (PHI) to pay for private health care has increased to 10.6%, despite significant increases in the prices of treatment in private hospitals. Some economists argue that the government should provide subsidies to encourage people to take out private health insurance. This would reduce the burden on the NHS by taking some people out of the state system. Furthermore it is argued that private health care increases choice for users, encourages competition and drives up standards of care.

A typical PHI policy for a healthy 35-year-old costs about £650 a year but this rises steeply to £2 300 for those aged 70, when claims are far more likely. The level of contribution is based on their risk of requiring health care. PHI also tends to incur high management and administrative costs due to the resources required to assess risk and claims. Also there is the possibility of market failure given asymmetric information.

(Source: adapted from https://www.kingsfund.org.uk/publications/how-health-care-is-funded)

Extract C

Public parks are a public good

Public parks are places which people can use for free to exercise or to relax. Parkrun Limited organises free weekly runs in local parks attracting hundreds of joggers per park to enjoy healthy exercise. The government is proposing to ban local authorities charging Parkrun for the use of public parks to fund the maintenance of public parks. The government considers that it is appropriate for the public to pay a reasonable sum for the private use of a facility such as a tennis court or a football pitch which may be used exclusively. However, the government does not consider it appropriate for a local authority to charge a volunteer community group 'seeking to provide a free weekly event' for the use of a public park. Parkrun share the park with other park users. Although a running course may be marked out there is no restriction on other people using the park.

(Source: adapted from © Crown Copyright Running Free – Government consultation on preserving the free use of public parks, April 2017, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/608372/Parkrun_ConDoc.pdf and http://www.telegraph.co.uk/news/2017/04/14/councils-banned-charging-runners-take-part-regular-saturday/)

Q) 6 (g) Evaluate the possible disadvantages of a free market approach to providing health care.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figures 1, 2, 3 and the following extracts (A to B) before answering Question 6.

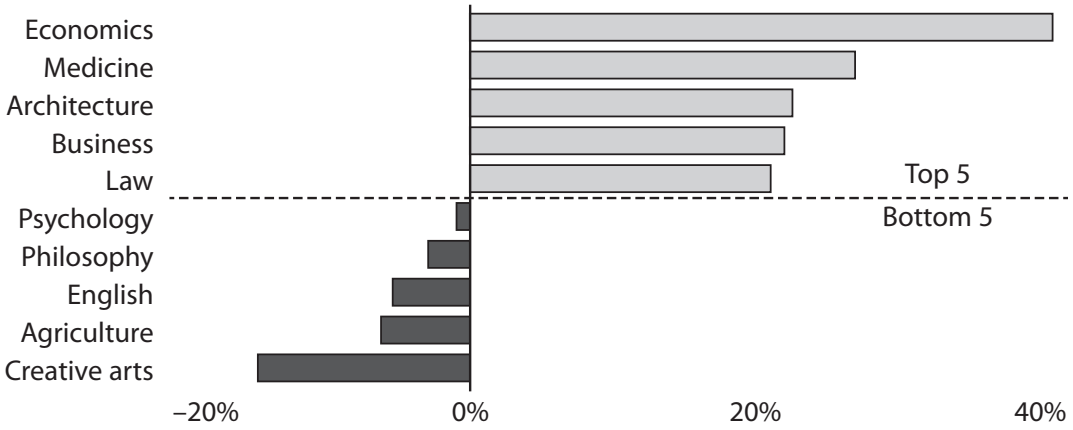
Answer ALL questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

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Question 6

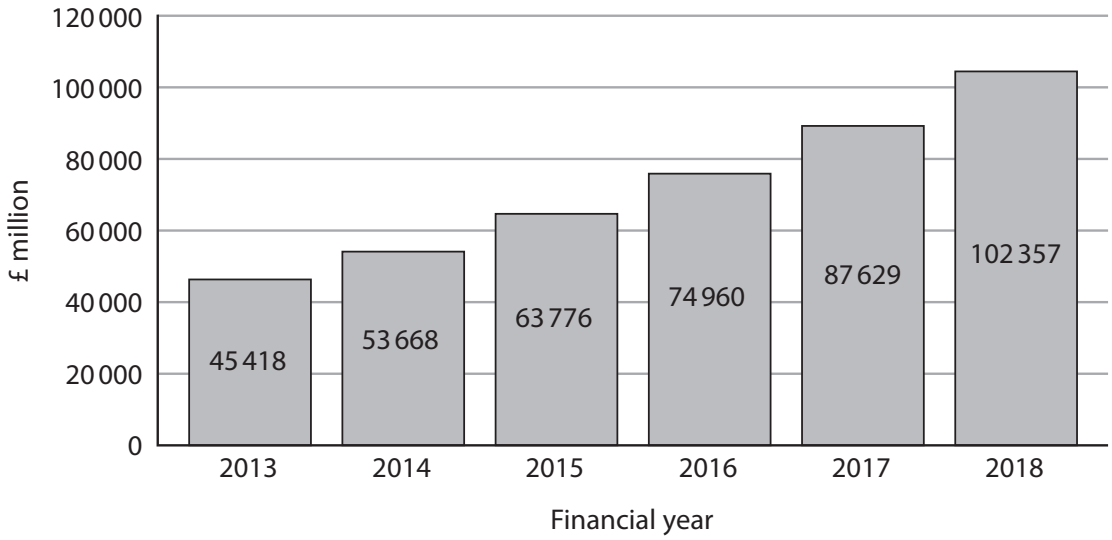
The market for higher education in the UK

Figure 1: Average graduate earnings, according to subject studied, compared to average non-graduate earnings (per cent) 2018 selected subjects.



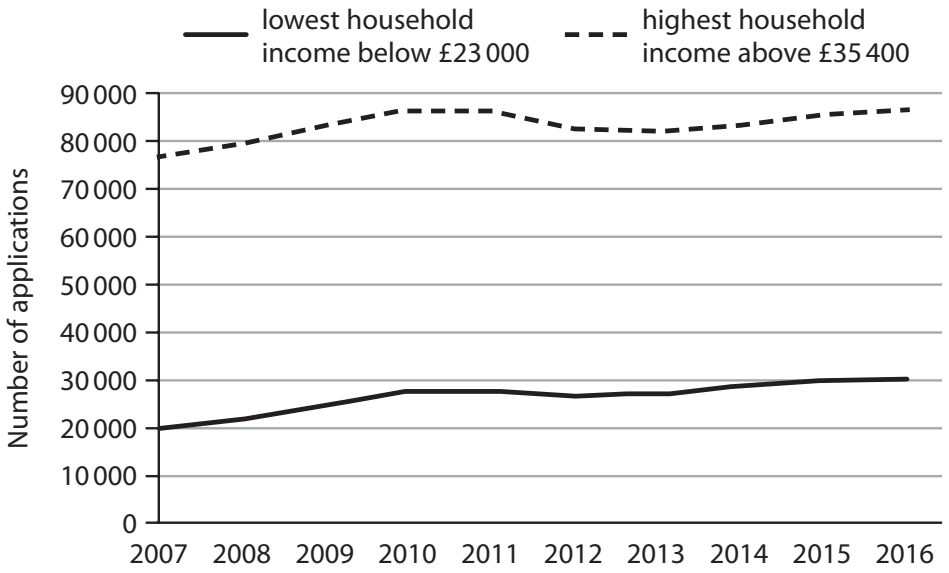
(Source: adapted from https://www.ifs.org.uk/publications/13731
The impact of undergraduate degrees on early-career earnings, Research report, November 2018)

Figure 2: Student loans outstanding at the end of financial years 2013 to 2018 in England



(Source: adapted from https://www.slc.co.uk/official-statistics/student-loans-debt-and-repayment/england.aspx)

Figure 3: Number of applications to UCAS according to median income of area



(Source: adapted from https://www.ucas.com/corporate/data-and-analysis/ucas-undergraduate-releases/2018-cycle-applicant-figures-january-deadline)

Extract A

Rethinking tuition fees

The value of a degree is significant. The latest data shows that the median university graduate income was £10 000 more than the average non-graduate income in 2018. This 'graduate premium' means graduates will contribute significantly to the economy. In addition, the government will benefit greatly from additional tax revenues.

However, funding higher education continues to be a major issue. English universities charge some of the world's highest fees. Interest rates on student loans are now 6.3%. There are a large number of courses where graduates are likely to earn less than non-graduates, despite an average of £50 000 of debt.

The Department for Education estimates that 45% of the value of loans will not be repaid. Outstanding student loans in England totalled more than £100 billion in 2018. By 2023 total outstanding student loans are forecast to rise to £120 billion.

One option for revising student fees could be to charge higher fees for courses that are more expensive to teach or that have a better chance of higher earnings. That would make Science or Mathematics degrees more expensive to study than English or Philosophy.

At most universities the level of fees is likely to be the same flat rate of £9 250 per year. However, science-based courses need more expensive equipment and courses such as medicine require more teaching time and personal instruction.

Tuition fees were introduced in 1998 at £1 000 per year. They are currently £9 250. Economists estimate that the price elasticity of demand for higher education is about –0.5.

Charging £9 250 a year for an undergraduate degree makes England very expensive by international standards. Scotland has no fees for Scottish students, and fees in Wales and Northern Ireland are significantly lower. Much of Europe has low or no fees and Germany, which used to charge fees, has abolished them, replacing them with a graduate tax.

The only country with comparable fees is the United States. Top private colleges can charge more than the equivalent of £30 000 per year while state colleges can charge local students less than fees in England.

Despite this, student numbers at English universities have continued to increase from 450 000 in 1998 to over 700 000 in 2018. Students from all backgrounds are more likely to go to university than ever before.

However, applicants from low-income areas are much less likely to go to university than applicants from high-income areas. The Universities and Colleges Admissions Service (UCAS) found that in the most deprived 10% of postal areas about 20% of young people went to university in 2018, compared with 50% in the highest income areas. Research by University College London revealed that even when candidates from low-income areas had the same exam results, they were much less likely to apply to university than candidates from high-income areas.

(Source: adapted from https://www.theguardian.com/education/2018/dec/16/change-in-student-loan-accounting-could-add-10bn-to-national-debt)

Extract B

Low-income university students twice as likely to drop out than high-income ones

The number of students from low-income areas who drop out of university before finishing their degree is at its highest in five years, indicating a considerable waste of scarce educational resources. This news comes at the same time as a drive to recruit students from poorer backgrounds, with universities spending a total of £725 million on access initiatives in the past academic year alone.

A number of top universities have started to lower their A level grade offers to students from low-income areas, in an attempt to encourage them to apply. However, there is a danger with 'enticing' disadvantaged students through lower grade offers, if universities are not going to provide ongoing support for them once they begin their courses.

The latest figures show that 9% of disadvantaged undergraduates do not continue in higher education beyond their first year. In comparison, the average drop-out rate among students from the high-income backgrounds was less than 5%. The gap continues to widen.

A report, published by the Office for Fair Access, concluded that: 'The significance of this for students is huge. Higher education can be a transformational experience that opens doors to rewarding careers and social mobility, but this is only the case if students achieve successful outcomes.'

(Source: adapted from https://www.telegraph.co.uk/news/2017/06/28/number-poor-students-dropping-university-highest-level-five/)

Q) 6 (f) Evaluate the possible advantages of a free market approach to providing services such as education.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Extracts A and B and Figure 1 before answering Question 6.

Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

The market for fish

Extract A

Total allowable catches of North Sea cod halved in response to falling stocks

In 2020, new lower limits on the quantity of cod that can be caught by the UK fishing fleet came into force. These limits on the fish catch, called total allowable catches (TACs), were agreed at the annual EU fisheries negotiations.

It was the last December EU meeting attended by the UK before it left the EU. It was agreed that cod catch limits will be cut by 50% in the North Sea, while reduced limits were agreed for cod in the Celtic Sea, Irish Sea and west of Scotland.

However, there were increases for other types of fish, with TACs for haddock in the North Sea rising by 23% and for sole rising by 19%.

UK Fisheries Minister George Eustice said: "This year there has been mounting scientific evidence suggesting that cod is being overfished in many parts of the northeast Atlantic and we have responded to conserve stocks".

These new regulations applied to the UK while it remained part of the Common Fisheries Policy. In the future it will become an independent coastal state and negotiate on fisheries with the EU and other coastal states such as Norway.

(Source adapted from: https://www.independent.co.uk/news/business/news/north-sea-cod-stocks-quota-climate-change-brexit-a9252196.html)

Figure 1

Atlantic over-fishing: share of total allowable catch (TAC) in excess of scientific advice (2019)

Country	Excess TAC (%)	Excess TAC (tonnes)
Sweden	52.4	17 369
United Kingdom	24.3	106 925
Ireland	21.7	34 052
Denmark	19.7	49 914
Germany	18.0	20 620
The Netherlands	13.5	31 910
Belgium	10.4	3 009
France	9.4	27 230
Spain	6.6	16 689
Portugal	3.8	3 662

(Source adapted from: Statista 2018)

Extract B

The tragedy of the commons

The 'tragedy of the commons' may occur when there are common access resources (CARs). These are natural resources over which no private ownership has been established. Therefore, there are difficulties in excluding people from using or exploiting them. CARs include fisheries and common grazing lands. Oceans are so vast that it is impractical for one fishing company to establish ownership and control. This means that others cannot be prevented from exploiting the ocean. Economists have suggested that with the lack of ownership of these resources, private producers will act in their own self-interest and exploit CARs to maximise profit. This exploitation is unsustainable. In other words, CARs provide an opportunity for individuals to create profit, while creating negative externalities which impact on everybody else. This process is referred to as the 'tragedy of the commons'.

The 'tragedy of the commons' is at the core of a range of problems that are relevant and threatening to natural resources, environments and human health. In the case of overfishing, fishing companies are not made accountable for the state of the ocean. They continue to fish as much as possible to maximise profit. Today, 90% of fish stocks are depleted.

The reason for such a wide range of problems is because there is an environmental cost for everything. The 'tragedy of the commons' is the outcome of the fact that every resource is limited on this planet, coupled with the rising level of demand for these resources. These issues are large-scale and require laws, regulation and international cooperation.

(Source adapted from: http://felixonline.co.uk/articles/2019-12-09-tragedy-commons-drama-planet-not-enjoying/)

Q) 6 (g) Other than using a TAC, evaluate the policy options which could be used to reduce market failure resulting from over-fishing. Use at least one appropriate diagram in your answer.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figures 1 and 2 and the following extracts (A to C) before answering Question 6.

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Question 6

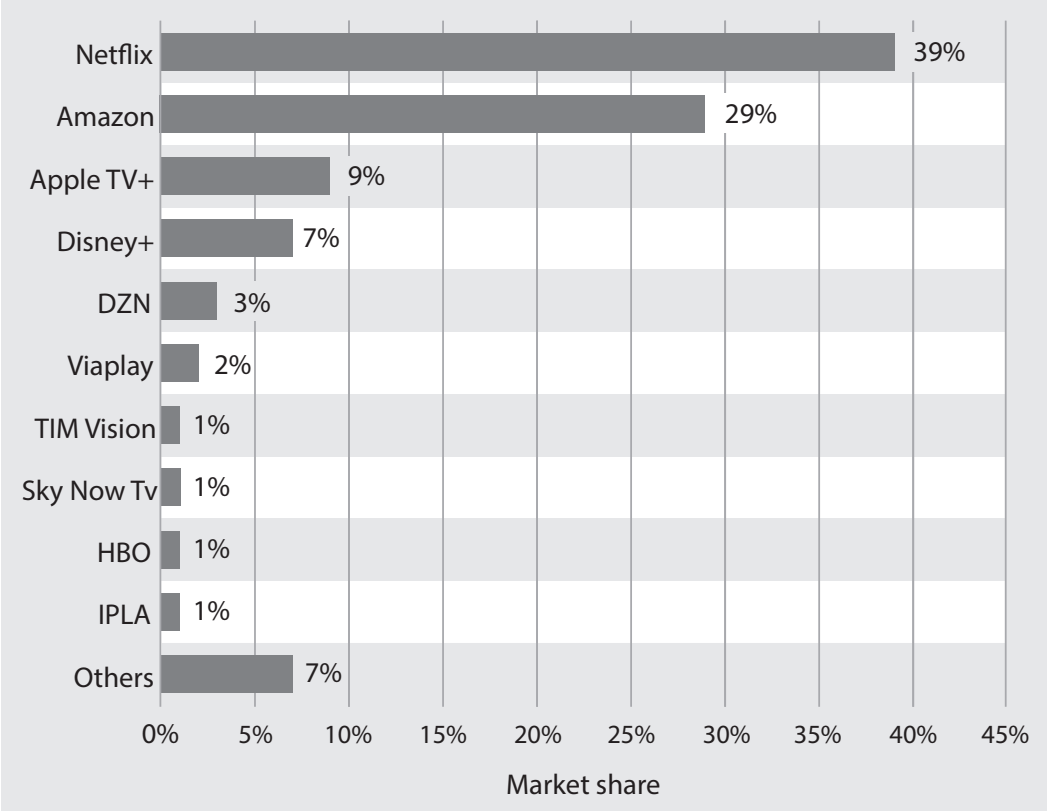
The market for television content

Figure 1: Elasticities of demand for streamed television services, UK, 2021

Price elasticity of demand	–0.6
Income elasticity of demand	1.6

(Source: adapted from https://www.consultancy.uk/news/24986/covid-19-presents-netflix-with-chance-to-hike-prices)

Figure 2: Market shares of streamed content providers, Europe, 2021



(Source: adapted from Statista 2021)

Extract A

The growth of streamed television content

Netflix currently has 13 million UK subscribers, who typically pay £9.99 a month to the US based private sector firm. At this price, up to two users can view the television content at the same time. The demand for individual firms' streamed television content boomed when people were forced to stay at home and has only begun to slow recently as more firms enter the market e.g. Amazon Prime Video.

The launch of Disney+ at the end of 2019, including original content such as the £74 million *Star Wars* TV spin-off *The Mandalorian*, resulted in the service adding more UK subscribers in a year in 2020 than any other streaming platform has ever managed.

However, the costs of providing streaming television content have risen. Consumers now expect original content, for example *Stranger Things* which costs around £10 million an episode to make. Furthermore, advertising in a saturated market is expensive.

In 2021, Netflix put up the price of its most-popular package by £1 a month to £9.99. Fortunately for Netflix, its subscriber demand has proven price inelastic. Just 3% of customers in a survey said they would definitely cancel their subscription after Netflix's latest price rise.

(Source: adapted from 'As UK hits peak, Netflix the streaming giant will have to work harder', The Guardian, Monday 3 January 2022)

Extract B

Is television content a public good?

Public service broadcasting in the UK is made up of a number of parts. First, there are the main UK-wide public service broadcasters (PSBs). There is the publicly funded BBC, and the publicly owned Channel 4 which is funded through advertisements.

The BBC was established in 1922 by a Royal Charter. It is mainly funded through the TV licence fee, which costs £159 a year and is a compulsory charge for those who watch live TV on any device. Live TV and catch-up services are free to view and do not restrict household usage. Without the licence fee very few people would pay due to the free rider problem.

The BBC's Charter sets out its five public purposes:

- To provide impartial news and information
- To support learning for people of all ages
- To show the most creative, highest quality and distinctive televised content
- To provide content for minority groups which would not be profitable for a private firm
- To reflect the UK, its culture and values to the world.

(Source: adapted from https://publications.parliament.uk/pa/cm5801/cmselect/cmcumeds/156/15604, and 'BBC licence fee to be abolished in 2027 and funding frozen', The Guardian, Sunday 16 January 2022)

Extract C

The environmental impact of streaming television content

The carbon footprint produced by watching a month of Netflix programmes is equivalent to driving a car to Saturn. Every activity in the chain required to stream video, from the use of huge datacentres and transmission over Wi-Fi and broadband to watching the content on a device, requires electricity. The majority of this is generated by emitting CO^2. Modern flatscreen televisions use significant amounts of energy.

There's very little a government can do about this in a free market dominated by US firms. The focus of any government intervention could be to encourage alternative forms of entertainment and recreation, support the development of more energy efficient devices, to improve information on the environmental effects or to use regulation to limit viewing hours.

(Source: adapted from 'Streaming's dirty secret: how viewing Netflix top 10 creates vast quantity of CO2', The Guardian, Friday 29 October 2021)

Q) 6 (f) Evaluate possible methods of government intervention to reduce the environmental damage caused by the consumption of television content.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

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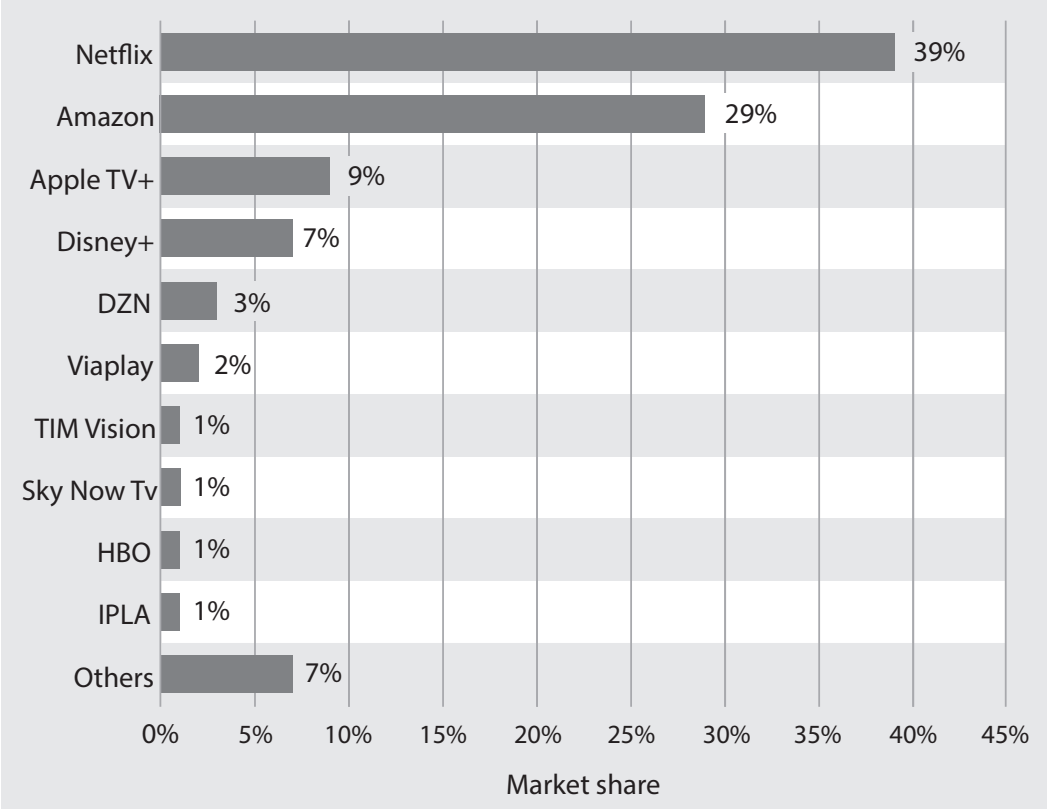
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Extract C

The environmental impact of streaming television content

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Q) 6 (g) Evaluate the possible disadvantages of a free market approach to the provision of television content.

(20)

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SECTION B

Read Figure 1 and the following extracts (A, B and C) before answering Question 6.

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Question 6

The market for plastic in the UK

Figure 1: Trend in the purchase of single-use plastic bags in millions, UK, 2014 to 2021

2014	2015	2016	2017	2018	2019	2020	2021
7 500	2 120	1 750	1 130	1 040	627	496	197

Extract A

10p charge continues to reduce use of plastic carrier bags

The 5p charge on single-use carrier bags was introduced in supermarkets in 2015. The charge was increased to 10p in 2021 and extended to all businesses.

The UK Environment Minister said that the plastic bag charge has ended the irrational purchase of billions of single-use carrier bags, thereby protecting our landscapes and ensuring millions of pounds are redistributed to worthy causes. This was needed as without this legislation, the market is not able to effectively manage the situation. Consumers are now in the habit of bringing reusable carrier bags when shopping.

In addition to single-use carrier bag charges, major retailers have offered bottle deposit return schemes and refillable food and cleaning product options. These provide incentives to consumers to reuse their plastic containers.

However, retailers have suggested that most customers do not wish to pay more for cleaning products in reusable packaging. With the average household income falling by 4.3% in 2023, sales of refillable cleaning products are expected to fall from 200 000 to 130 000 this year.

(Source adapted from: https://www.circularonline.co.uk/news/)

Extract B

Plastic packaging tax

Food manufacturers have criticised the implementation of a new UK environmental tax, warning it will force them to increase prices for consumers.

The 2018 tax was designed to provide incentives to businesses to use recycled plastic in packaging. Businesses manufacturing or importing 10 tonnes or more a year of plastic packaging that contains less than 30% recycled plastic are taxed at £200 a tonne. Plastic packaging containing more than this will be exempt from the tax.

Helene Roberts, Chief Executive of Robinson Packaging, said increased prices for the consumer would be an unintended consequence of the tax. "It will just create inflationary pressures within the supply chain and firms may need to pass this on." A wide range of businesses are affected by the new tax, including retailers importing items such as bin liners, drink bottles and carrier bags. Food manufacturers are particularly impacted as the industry uses 40% of packaging in the UK.

(Source adapted from: https://www.ft.com)

Extract C

Single-use cups

An estimated 2.5 billion single-use cups are used in the UK every year by consumers buying coffee from chains and cafes, creating approximately 25 000 tonnes of waste. Research has found that while a 25p charge on single-use cups increases the use of reusable coffee cups in coffee shops, a discount on reusable coffee cups has no impact at all on their use.

A 25p charge on single-use cups increases the use of reusable coffee cups by 3.4%. Environmental messaging in cafes, for example posters about litter, increases the use of reusable coffee cups by 2.3%. The availability of reusable cups leads to an increase of 2.5% whereas the distribution of free reusable cups leads to a further increase of 4.3%.

"While the increases for individual measures were modest, the greatest behavioural change was when the measures were combined," said Wouter Poortinga of Cardiff University.

(Source adapted from: https://www.theguardian.com/environment/2017/mar/30/)

Q) 6 (f) Evaluate the likely impact of a tax on plastic food-packaging. Use a diagram to support your answer.

(20)

(Total for this part = 20 marks)

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(Source adapted from: https://www.theguardian.com/environment/2017/mar/30/)

Q) 6 (g) Evaluate methods of government intervention which could be used to reduce the market failure associated with plastic waste. Use a diagram to support your answer.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

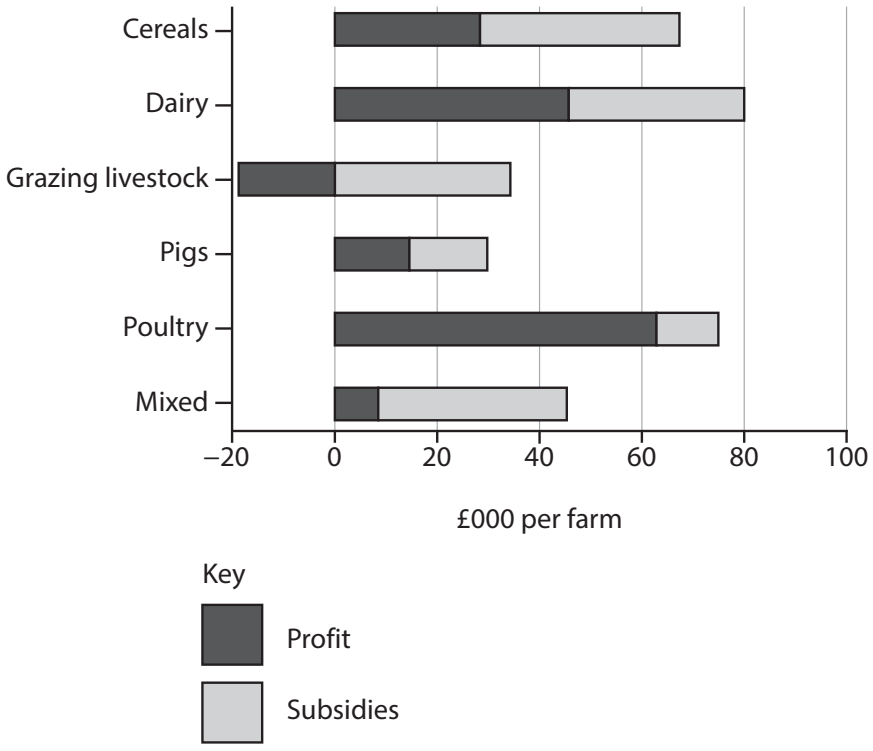
Sources for use with SECTION B

Read the following figures (1 and 2) and extracts (A and B) before answering Question 6.

The market for meat and the growth of vegetarianism

Figure 1

The impact of subsidies on farmer income, in England, 2018–2019 (£000 per farm)



(Source: adapted from www.FT.com)

Figure 2

Potential impact of indirect tax rises on meat prices per kg, 2023–2030

Type of Meat	Before indirect tax increases	After indirect tax increases
Beef/Veal	£24.24	£29.50
Chicken	£7.60	£8.63

(Source: adapted from Tax beef, pork and chicken to help climate and health, EU urged – CGTN)

Extract A

The case for cutting out meat

Around a third of Britons are reducing the amount of meat they eat or are cutting it out altogether. Are these consumers right to be cutting out meat? For a start, there are the greenhouse gases released as a result of producing food. The evidence is clear that switching to a plant-based diet would lower emissions. A UK study found that eating a diet high in meat costs 7.2 kg carbon dioxide emissions per day, compared with 3.8 kg for vegetarians. It would also free up land for other uses. Nearly 80% of the world's farmland is dedicated to rearing animals; a plant-based diet would cut the use of land for agriculture by 76%. The land currently used by grazing livestock could be used for "rewilding", allowing the environment and animal species destroyed by meat farming to recover.

Our health and wealth would be better too. A study published in 2016 modelled what would happen to our health and the global economy if we all switched to vegetarian diets. The economic benefits of switching to plant-based diets could be as much as £700 billion to £1 trillion per year in terms of savings on healthcare costs and lost working days due to ill health.

Some economists recommend an increased indirect tax on animal products so that their prices reflect the cost of externalities.

This could impact on European farmers, if adopted by the European Union. The tax could bring £35 billion to the EU, with around £15 billion of that going directly to farmers. The rest would be used to bring down VAT on fruit and vegetables, and fund other policies to encourage healthy-eating diets both in and outside the EU.

(Source: adapted from https://moneyweek.com/499842/the-economic-consequences-of-veganism December-28-2018)

Extract B

Businesses benefitting from meat-substitute products

There is one group for whom the trend towards meat-substitute products is definitely a good thing: processed food manufacturers and retailers.

Finest British beef burgers are priced at £6.61 per kg. The 'fake burger' (which is made mostly of pea protein) is priced at £21.81 per kg even though the ingredients used to make them, such as mushrooms, peas and palm oil, are cheaper ingredients than meat. Despite high prices, demand continues to rise for these products. This might benefit shareholders, but is it doing any real good for the rest of us?

A large food producer bought meat-substitute product maker Vegetarian Butcher in December 2018 and is moving towards a range with more meat-substitute products. In 2017, Nestlé bought Sweet Earth, a California-based maker of vegetarian foods, and it is launching its own meat-substitute 'Incredible Burger'. It expects its meat-substitute revenues to reach $1 billion by 2029.

As subsidies are being cut in every area of farming, consumers ought to be willing to pay higher prices for all food products. If farmers are to stay in business, they need to find additional sources of revenue such as oyster mushrooms, goji berries and basil.

(Source: adapted from http://www.financialtimes.com/the-veganism-boom-does-more-for-food-company-profits-than-the-planet February-22-2019)

Q) 6 (f) Evaluate the likely microeconomic effects of a reduction in subsidies to farmers of animal products (Figure 1 and Extract B, line 14). Use a relevant diagram to support your answer.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

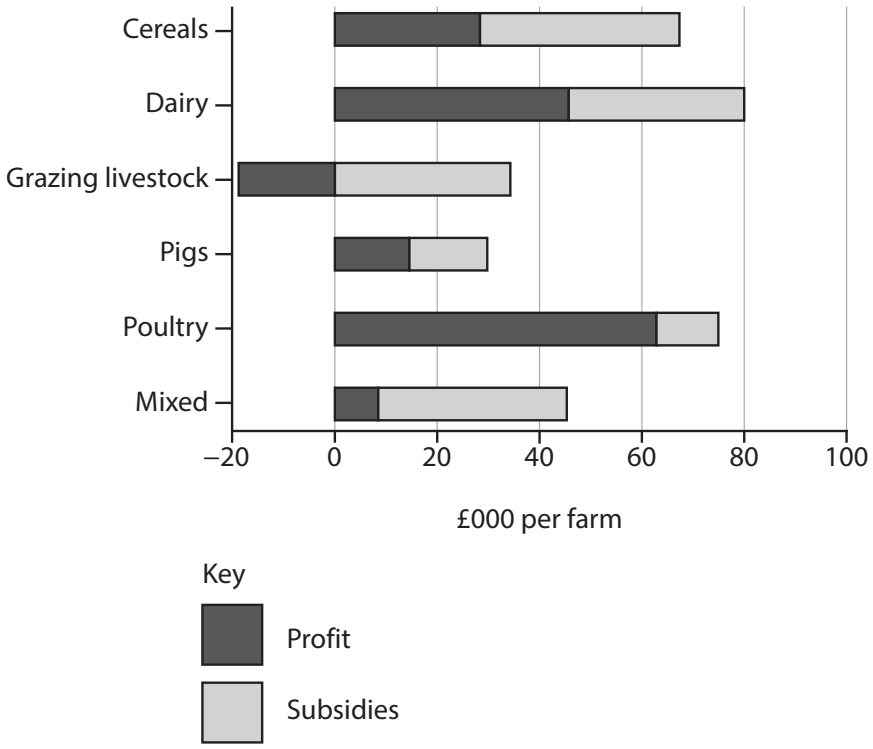
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(Source: adapted from http://www.financialtimes.com/the-veganism-boom-does-more-for-food-company-profits-than-the-planet February-22-2019)

Q) 6 (g) Evaluate the likely microeconomic effects of an increase in indirect tax on animal products (Figure 2 and Extract A, line 17). Use a relevant diagram to support your answer.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

Q) 7 In 2015 a report by Public Health England recommended the imposition of a 20% tax on the sale of soft drinks that contain high levels of sugar. Evaluate the likely microeconomic effects of such a tax.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

SECTION A

Read Figure 1 and the following extracts (A, B and C) before answering Question 1.

Answer ALL Questions 1(a) to 1(c), and EITHER Question 1(d) OR 1(e).

Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 1

Markets for food and drinks high in fat, salt or sugar (HFSS)

Figure 1: UK market share of potato crisps, 2017

Firm	Brand	Size	Market share of firm	Market share of product	Price (£)
Walkers	All Walkers		*55.3%*		
	of which: *Regular Standard*	35 g		28.1%	0.45
	Regular Max	50 g		7.4%	0.63
	Sensations	40 g		2.0%	0.59
	Doritos	40 g		4.7%	0.45
	Other			13.1%	
KP	KP	50 g	*22.7%*		0.52
Tayto	Golden Wonder		*4.2%*		
		<40g		3.1%	0.38
		40g+		1.1%	0.72
Other	Other		*17.8%*		

(Source: adapted from https://academic.oup.com/restud/article/3108825/The-Effects-of-Banning-Advertising-in-Junk-Food 6 April 2017)

Extract A

The effects of a total ban on advertising of HFSS foods

Food and drinks which are high in fat, salt or sugar (HFSS) tend to be sold in highly concentrated markets. Tough new rules banning advertisements for HFSS products, such as those for confectionery, fizzy drinks and potato crisps, come into effect in July 2017 as a means to reduce consumption. The rules apply to media targeted at under-16s and will mean a major reduction in the number of advertisements children see for HFSS products in posters near schools, in films targeted at children, on catch-up television and in social media if it is directed at children.

There are three main factors that will determine the effectiveness of the intervention: first, whether advertising acts to expand the market share or steal rivals' market share. Secondly, how firms in the market adapt their behaviour in response to the ban. Thirdly, what substitute products do consumers turn to if they opted out of the targeted market.

Results from a recent survey in the UK suggest that the total quantity of crisps sold would fall by around 15% in the presence of an advertising ban, or by 10% if firms respond with price cuts, since the ban acts to make the market more competitive and firms respond to the ban by, on average, lowering their prices.

The survey showed that following a ban, consumers are more likely to switch to another junk food than to a healthy food, which (in addition to the pricing response of firms) acts to partially offset any health gains from the policy.

(Source: adapted from The Effects of Banning Advertising in Junk Food Markets, Dubois, Pierre; Griffith, Rachel, Review of Economic Studies Copyright © 2017, Oxford University Press https://academic.oup.com/restud/article/3108825/The-Effects-of-Banning-Advertising-in-Junk-Food 6 April 2017 and https://www.asa.org.uk/news/tougher-new-food-and-drink-rules-come-into-effect-in-children-s-media.html 30 June 2017)

Extract B

Taxing HFSS foods and subsidising healthy eating widens inequality

Since low-income groups spend a higher proportion of their income on food and tend to eat less healthily, they are the main targets of taxes on products that are high in fat, salt or sugar (HFSS). Subsidies on healthy food are seen as an alternative policy approach to encourage healthy eating. While data on the impact of such policies are scarce, a recent study on the distributional impacts of HFSS taxes and healthy food subsidies found that these actually widened health and fiscal inequalities. The policies tend to be regressive and favour higher-income consumers. Taxes on unhealthy food increase prices which have a greater impact on low income groups rather than higher income groups. Lower income groups prefer to buy HFSS food.

Subsidies encouraged all income groups to buy more fruit and vegetables. However, those on higher incomes proved more responsive and the average share of budget spent on healthy food actually increased for the higher income groups who were more likely to buy the subsidised healthy food and then spend the savings they had enjoyed on yet more healthy food. The diets of the higher income groups before the subsidy tended to be healthier. The choices of the higher income groups are more responsive to price changes. By contrast, lower income groups, if they responded to lower prices, often used the money saved to buy unhealthy items or something else entirely. The long-term benefits of a healthier diet are harder to grasp for consumers when information gaps exist. Often the immediate boost of a tasty treat is more appealing. Taxes and subsidies do not change that. Other strategies are needed to promote healthy eating, especially education.

(Source: adapted from Economist 5 October 2017 https://www.economist.com/news/finance-and-economics/21730033-study-suggests-lower-income-families-end-up-paying-more-their-food-taxing-fat and https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3031005 The Economic Journal September 2017 Vol 127 Issue 604)

Extract C

Tax on fatty foods in Denmark is an economic disaster

Denmark introduced a specific tax on saturated fat in October 2011. Recognised as a world-leading public health policy, it was abandoned just 15 months later having been both an economic and political disaster.

Indirect taxes of this sort are invariably regressive, disproportionately affecting the elderly and the poor. The specific tax led to prices rising on average 15% for highest-fat products, yielding a total decrease of 5% in the intake of saturated fat from products such as minced beef and cream. 80% of Danish consumers did not change their shopping habits at all. The behavioural change was economically damaging as consumers switched to cheaper brands and crossed the border to Sweden and Germany to do their shopping. Danish tax revenue fell as a result.

(Source: adapted from https://iea.org.uk/in-the-media/press-release/evidence-shows-a-fat-tax-would-hit-poorest-the-hardest 25 May 2013 and https://www.cambridge.org/core/journals/public-health-nutrition/article/effects-of-the-danish-saturated-fat-tax-on-the-demand-for-meat-and-dairy-products/984CF03634C819D50E66C7B5DC5209DA/core-reader)

Q) 1 (d) Evaluate the microeconomic and macroeconomic effects of increased government spending on education to promote healthy eating in the UK.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

SECTION A

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Q) 1 (e) Evaluate the likely microeconomic and macroeconomic effects of imposing a tax on HFSS foods.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

7 The national living wage, the minimum wage for 25-year-olds and over, is expected to rise to more than £10.50 an hour in 2024 compared with £8.72 in 2020. The wage does not apply to the UK's self-employed and 'gig economy' workers. Some economists said the increase was ambitious. Business groups warned that employers in sectors such as social care could be hit hard. In large parts of the north of England the living wage has already reached two-thirds of local median earnings, said Professor Shackleton.
(Source adapted from: https://www.theguardian.com/uk-news/2020/mar/11/budget-2020-national-living-wage-national-insurance)

Q) Evaluate the disadvantages of a significant increase in the national living wage on a specific labour market, such as that for social care workers.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

SECTION A

Read extracts A and B before answering Question 1.

Answer ALL Questions 1(a) to 1(c), and EITHER Question 1(d) OR 1(e).

Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 1

Hand car wash (HCW) firms in the UK

Extract A

What is the true human cost of your £5 hand car wash (HCW)?

The UK's hand car washes (HCWs) are extremely price competitive, but they have also been linked to modern slavery. Are they ever fair for workers?

There is little agreement about how many HCWs there are in the UK. Estimates range from 10 000 to 20 000. This lack of accurate information about the industry makes government regulation very difficult. Automated car washes, with their fierce rotating bristles, used to be the first option for drivers in a hurry. Now there is more choice. While the economy slows and incomes fail to keep up with inflation, demand for HCWs has grown. Many people see paying £5 for a car washed by someone else, rather than cleaning it at home, as a small expense which yields a high utility. But what is the true cost of a £5 car wash – and what should we be paying?

The growth of HCWs is partly the result of changes in the structure of industry in the UK. Many petrol stations have closed as drivers fill up at supermarkets. Garages and their forecourts have closed as cars become more reliable and locked into service agreements. The available sites for HCWs have therefore increased significantly and rents have fallen.

HCW entrepreneurs have identified available land and have benefitted from changes in the labour market, partly as a result of EU migration. UK drivers are now able to obtain cheap and effective hand car washing. For many migrants, car washes are a first job. "They accept car washing for a short period while they improve their language skills and move into other industries," says Ian Clark, a professor of work and employment at Nottingham Business School. "But there are also car-wash workers without networks who are in a dead end, working there for long periods."

Many drivers are only interested in getting the cheapest wash. If the price is very low, it probably means that workers are receiving less than the minimum wage and working in poor conditions. Crude calculations illustrate the problem. A £5 HCW employing five workers for 10 hours a day would need to wash 79 cars a day to just cover the wage costs. This assumes the workers are paid the minimum wage. This is one car every seven and a half minutes. Even if the profit can be higher on valet services, the price of which can be as little as £12 for a full inside-and-out clean, it's hard to see how a car wash price as low as £5 pays a living wage. This ignores all other costs which HCWs incur such as business rates and rent.

Evidence from car-wash workers is limited but Clark and others have been able to build a picture of some of the tougher conditions on drenched forecourts. "Like nail bars and small garment manufacturers, car washes are what we call 'hard-to-reach places,'" Clark explains. As part of the research, Clark and his team spoke to workers from 45 HCWs in the Midlands.

Clark and his team met and observed workers who lacked waterproof boots or trousers, or hi-vis jackets and gloves. "They're spraying around hydrochloric acid solution for alloy wheels, breathing in the vapour and fumes," Clark says. Some workers were paid a little over half the minimum wage.

(Source adapted from: https://www.theguardian.com/world/2018/jul/16/true-human-cost-5-pound-hand-car-wash-modern-slavery)

Extract B

Government intervention in the HCW industry

There are three main areas of government intervention that might impact on labour intensive firms such as HCWs:

First, there is the planning issue which focuses on the impact on the environment, for example, the disposal and recycling of waste water and chemicals. There could be planning regulations to prevent the use of tarmac rather than concrete on forecourts. Tarmac allows waste water and chemicals to seep into the sub soil. It could also be a requirement to have a sludge trap to stop the waste entering waterways.

Second, there is the health and safety issue for workers. Prolonged exposure to chemicals and lack of protective clothing puts the health of workers at risk. Performance targets could involve minimum levels of protective clothing and rest breaks for the workers.

Third, there is the issue of tax. The informal nature of the business type makes tax evasion easier.

Not all UK HCWs violate regulations. There are legitimate, regulated HCW firms as well as examples of good practice by independent outlets. One national supermarket, Tesco, has banned all independent hand car washes from its car parks. It is now in a partnership agreement with national car wash operator Waves. It uses a WashMark certificate of quality and compliance which was introduced by the industry to improve working conditions. Other major supermarkets are considering similar changes. One adviser believes £9 is a reasonable minimum price for a basic wash. Some pressure groups have developed a mobile phone app where evidence of unreasonable conditions can be reported by drivers.

Involving drivers in the issue, and making them demand fairer car washes, creates an incentive for good businesses to improve practices and come forward to get a WashMark certificate.

(Source adapted from: https://www.parliament.uk/documents/commons-committees/environmental-audit/Hand-Car-Wash-evidence.pdf research into HCWs by Professor Ian Clark, Nottingham Business School May 2018)

Q) 1 (e) Evaluate the microeconomic and macroeconomic effects of increased government intervention in an industry. Refer to HCWs or another industry of your choice.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

SECTION A

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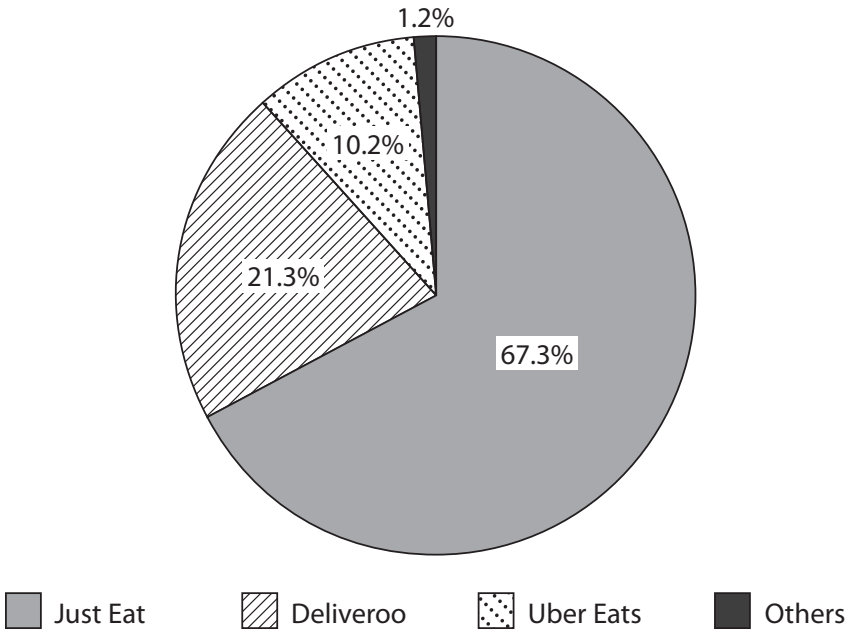
Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 1

The food delivery industry

Figure 1: Market share for third-party food delivery services in the UK, 2019



(Source: adapted from https://onefourzerogroup.com/the-takeaway-takeover/)

Extract A

National Minimum Wage rises are more significant for 23 to 25-year-olds

In 2021, the National Minimum Wage main rate, also known as the National Living Wage, rose by 2.2% to £8.91, following a 6.2% rise in 2020. By reducing the age at which people are eligible for the National Living Wage to 23 in 2021, it is estimated that an additional 7.5% of 23 to 25-year-olds could get a 71p an hour pay rise. This amounts to an 8.7% increase, which may cause further financial worries for employers.

(Source: adapted from https://www.ndna.org.uk/NDNA/News/Latest_news/2020/Minimum_wages_to_rise_by_inflation_in_April.aspx)

Extract B

What is the true cost of the food delivery service?

The food delivery industry has boomed in recent years. Just Eat, Uber Eats and Deliveroo all offer very similar services – third-party food delivery firms that take up to 30% of the price of restaurant meals and deliver them to customers within a certain radius. The average spend per customer is around £15 with a £5 delivery fee, about five times more expensive than cooking at home and the same price as eating in the restaurant. Cash rich, time poor professionals increasingly turn to food delivery.

Food delivery comes with many layers of packaging. In the UK, there are 200 million meals annually with around 1.4 billion individual pieces of plastic for heat retention and protection when travelling, but does it really have to be plastic? People tend to order more food, often high in fat, sugar and salt, and don't even have to get up from their sofa.

But there are concerns that the delivery firms are exploiting employees who have no alternative. There is an issue of low pay and informal contracts. Delivery drivers are classed as 'independent contractors', and therefore not subject to some employment rights including a guaranteed minimum wage, sick pay, pensions or holiday pay. Drivers are paid either a flat hourly rate, or a fee per delivery. Factors such as delivery distance, speed, how busy it is and whether there are multiple drop-offs are all factored into how much a driver is paid. Deliveroo says its wages amount to around £10 per hour, but drivers say that during 2020 their pay has been as low as £1 per hour. Drivers are not paid extra for petrol or to maintain their vehicles. Many drivers are recent immigrants or students, who do not have property or savings to fall back on.

The government could address this with widening minimum pay legislation to contracted workers, by setting codes of practice, or by setting recommended wage targets. Furthermore, there are health and safety issues for workers. Vehicle safety checks, length of shifts and safety equipment are of concern. However, there are still people who take benefit from working flexibility.

(Source: adapted from https://www.theguardian.com/australia-news/2020/oct/25/home-food-delivery-what-is-the-most-ethical-way-to-order-in and https://digitalcommons.molloy.edu/cgi/viewcontent.cgi?article=1043&context=bus_fac)

Extract C

Integration in the third-party food delivery industry

The Competition and Markets Authority (CMA) is watching carefully to prevent any one firm having complete control of the food delivery industry. Just Eat, the market leader, agreed to merge with successful Dutch firm Takeaway.com in 2020, creating a new European leader by revenues. It also bought Grubhub in the US, with 20 million active users. Just Eat uses an aggressive pricing strategy, undercutting delivery fees below the average cost of other firms in the market, that will force them to merge in order to gain some economies of scale.

Amazon, having failed with its own delivery company Amazon Restaurants in 2018, has bought 16% of Deliveroo. The CMA took over a year to agree to the partial integration, on the argument that Deliveroo would close down without external investment. Amazon has unique expertise in marketing, increasing customer share and, most importantly, efficiency in delivering things. Food delivery is often uneconomical because a single household puts in a single order from a single restaurant at any one time. Tech companies such as Amazon can improve the business: once a meal has been ordered, an app often moves that restaurant to the top of the rankings for that neighbourhood, in the hope of getting a second and third delivery.

So why do restaurants turn to these delivery firms? The sheer volume of customers these delivery firms can hold makes it a difficult deal to turn down. But resentment from small business restaurant owners, angry at being wholly dependent on tech companies, is growing. Most restaurants would prefer that customers come in and pick up their orders themselves because they do not have to pay the 30% commission. Restaurant profit margins are small, and the effects of a 20% fall in the external value of the pound since 2016 on food costs are significant, given that over half of their food and drink is sourced outside the UK.

(Source: adapted from https://www.ft.com/content/c20f6848-3c4b-11ea-a01a-bae547046735 https://www.ft.com/content/edf8a144-a101-4ef8-80e3-7d2f1565d35c and https://www.thisismoney.co.uk/money/markets/article-8138703/Uber-set-sell-takeaway-division-rival-Deliveroo-two-years.html and https://www.ft.com/content/c20f6848-3c4b-11ea-a01a-bae547046735 and https://www.ft.com/content/bed7c4d8-28c1-11ea-9a4f-963f0ec7e134 and https://www.economist.com/1843/2021/01/26/gulp-the-secret-economics-of-food-delivery)

Q) 1 (e) Evaluate the microeconomic and macroeconomic effects of significant increases in the minimum wage. Refer to restaurants or other food delivery services in your answer.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

7 The average UK household energy bill (gas and electric combined) rose 80% from £1 971 in 2021 to £3 549 in 2022.
(Source adapted from: https://www.telegraph.co.uk/money/consumer-affairs/energy-price-cap-rise-october-2022-what-happen-household-bills/)

Q) Evaluate possible methods of government intervention to control household energy bills in the UK.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

8 Using 2021 estimates of carbon emissions, it is estimated that a petrol car journey from London to Glasgow emits approximately 3.3 times more carbon dioxide per passenger than the equivalent journey by train.
(Source adapted from: https://www.gov.uk/government/statistics/transport-and-environment-statistics-autumn-2021/transport-and-environment-statistics-autumn-2021)

Q) Evaluate possible methods of government intervention to reduce carbon emissions caused by road transport in the UK.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

8 In 2023, the UK prime minister Rishi Sunak said that he wanted to see all students in England study some form of mathematics until they reach the age of 18 to 'ensure that they leave school better equipped for the jobs of the future'. This would require additional spending on education. Just half of all 16 to 19 year-olds study mathematics. Yet in a world where data is everywhere and statistics are vital in every job, the workforce will require more analytical skills than ever before.
(Source: adapted from https://educationhub.blog.gov.uk/2023/01/04/studying-maths-to-18-what-you-need-to-know/)

Q) Evaluate the likely microeconomic effects of increased spending on education.

(25)

(Total for this part = 25 marks)

Continue on separate paper if required.

SUB-TOPIC 1.4.2

GOVERNMENT FAILURE

Sub-topic 1.4.2 · 8 questions · 96 marks · lowest tariff first

5 HS2 is a high-speed rail network linking the north and south of England. HS2 will be four years late and cost double the Department for Transport's original estimate.

(Source: https://www.transportxtra.com/publications/local-transport-today/news/58459/hs2-will-be-four-years-late-and-cost-double-the-dft-s-estimate-mps-told)

(a) Define the term 'government failure'.

(1)

.....

.....

.....

.....

(Total for Question 5(a) = 1 mark)

4 In 2022 the government announced that the maximum undergraduate tuition fee for universities in England will remain at £9 250 per year for the next two years.

(Source adapted from: https://questions-statements.parliament.uk/written-statements/detail/2021-10-21/HCWS339)

(b) Which **one** of the following is an example of government failure associated with the maximum price?

(1)

- ☒ **A** Contraction in demand
- ☒ **B** Distortion of price signals
- ☒ **C** Excess supply
- ☒ **D** Extension in supply

(Total for Question 4(b) = 1 mark)

5 HS2 is a high-speed rail network linking the north and south of England. HS2 will be four years late and cost double the Department for Transport's original estimate.

(Source: https://www.transportxtra.com/publications/local-transport-today/news/58459/hs2-will-be-four-years-late-and-cost-double-the-dft-s-estimate-mps-told)

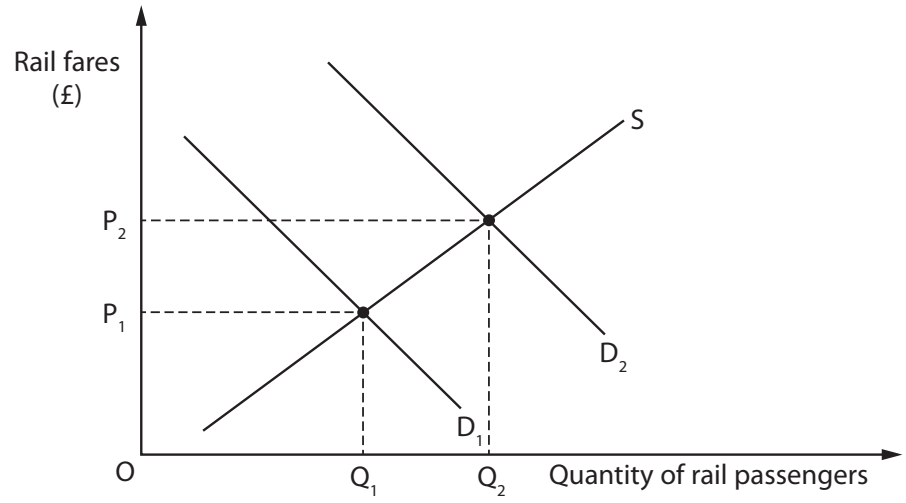
(a) Define the term 'government failure'.

(1)

(b) Explain **one** likely microeconomic reason why the government is using taxpayers' money to fund HS2.

(2)

(c) The diagram below shows the demand for and supply of passenger rail services.



The shift of the demand curve from D_1 to D_2 is most likely to result from a:

(1)

- ☒ **A** government decision to impose a tax on workplace parking
- ☒ **B** government decision to increase subsidies for rail travel
- ☒ **C** planned expansion of the government's railway track building programme
- ☒ **D** reduction in the tax imposed on a litre of petrol

(Total for Question 5 = 4 marks)

TOTAL FOR SECTION A = 20 MARKS

SECTION B

Read Figure 1 and the following extracts (A, B and C) before answering Question 6.

Answer ALL Questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour 5 minutes on this section.

Question 6

The market for plastic in the UK

Figure 1: Trend in the purchase of single-use plastic bags in millions, UK, 2014 to 2021

2014	2015	2016	2017	2018	2019	2020	2021
7 500	2 120	1 750	1 130	1 040	627	496	197

Extract A

10p charge continues to reduce use of plastic carrier bags

The 5p charge on single-use carrier bags was introduced in supermarkets in 2015. The charge was increased to 10p in 2021 and extended to all businesses.

The UK Environment Minister said that the plastic bag charge has ended the irrational purchase of billions of single-use carrier bags, thereby protecting our landscapes and ensuring millions of pounds are redistributed to worthy causes. This was needed as without this legislation, the market is not able to effectively manage the situation. Consumers are now in the habit of bringing reusable carrier bags when shopping.

In addition to single-use carrier bag charges, major retailers have offered bottle deposit return schemes and refillable food and cleaning product options. These provide incentives to consumers to reuse their plastic containers.

However, retailers have suggested that most customers do not wish to pay more for cleaning products in reusable packaging. With the average household income falling by 4.3% in 2023, sales of refillable cleaning products are expected to fall from 200 000 to 130 000 this year.

(Source adapted from: https://www.circularonline.co.uk/news/)

Extract B

Plastic packaging tax

Food manufacturers have criticised the implementation of a new UK environmental tax, warning it will force them to increase prices for consumers.

The 2018 tax was designed to provide incentives to businesses to use recycled plastic in packaging. Businesses manufacturing or importing 10 tonnes or more a year of plastic packaging that contains less than 30% recycled plastic are taxed at £200 a tonne. Plastic packaging containing more than this will be exempt from the tax.

Helene Roberts, Chief Executive of Robinson Packaging, said increased prices for the consumer would be an unintended consequence of the tax. "It will just create inflationary pressures within the supply chain and firms may need to pass this on." A wide range of businesses are affected by the new tax, including retailers importing items such as bin liners, drink bottles and carrier bags. Food manufacturers are particularly impacted as the industry uses 40% of packaging in the UK.

(Source adapted from: https://www.ft.com)

Extract C

Single-use cups

An estimated 2.5 billion single-use cups are used in the UK every year by consumers buying coffee from chains and cafes, creating approximately 25 000 tonnes of waste. Research has found that while a 25p charge on single-use cups increases the use of reusable coffee cups in coffee shops, a discount on reusable coffee cups has no impact at all on their use.

A 25p charge on single-use cups increases the use of reusable coffee cups by 3.4%. Environmental messaging in cafes, for example posters about litter, increases the use of reusable coffee cups by 2.3%. The availability of reusable cups leads to an increase of 2.5% whereas the distribution of free reusable cups leads to a further increase of 4.3%.

"While the increases for individual measures were modest, the greatest behavioural change was when the measures were combined," said Wouter Poortinga of Cardiff University.

(Source adapted from: https://www.theguardian.com/environment/2017/mar/30/)

6 (a) Explain what is meant by the 'unintended consequence' (Extract B, line 9) of the plastic tax.

(5)

SECTION B

Read the following Figures (1 to 2) and Extracts (A to B) before answering Question 6.

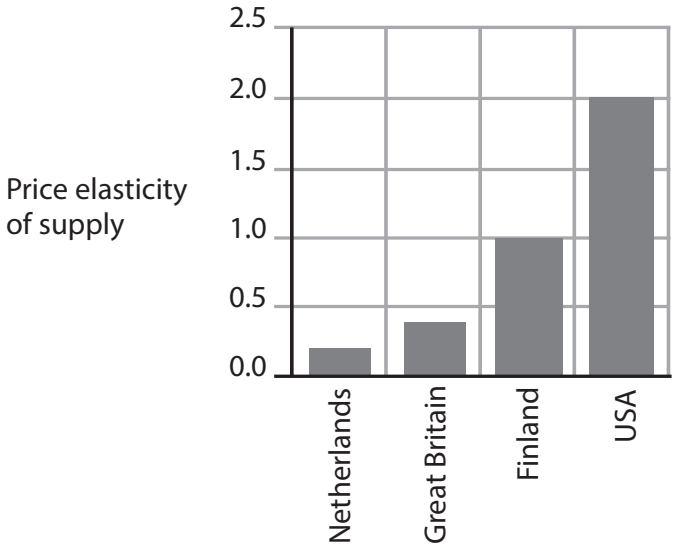
Answer ALL Question 6 (a) to 6 (e) and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

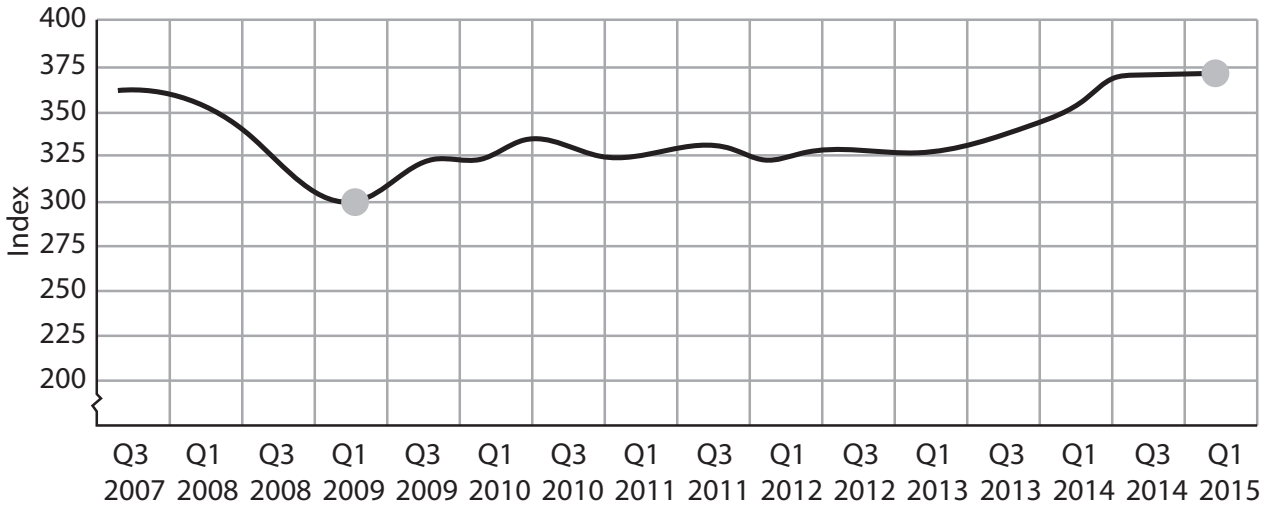
The market for housing

Figure 1 – Estimates of the price elasticity of supply of new housing, selected countries



(Source: adapted from Caldera Sánchez, A. and Å. Johansson (2011), "The Price Responsiveness of Housing Supply in OECD Countries", Figure 3, OECD Economics Department Working Papers, No. 837, OECD Publishing. http://dx.doi.org/10.1787/5kgk9qhrnn33-en)

Figure 2 – Index of UK house prices (1993 = 100)



(Source: http://www.nationwide.co.uk/about/house-price-index/download-data#~)

Extract A

Problems facing UK first time buyers

Over a third of aspiring first time buyers in the UK have given up hope of ever being able to save for a deposit to buy a property, new research has found. A deposit is the minimum amount that must be paid upfront when buying a property, which is a proportion of the price of the property.

The UK Government has a Help to Buy scheme designed to help people buy a home. The government subsidises the mortgage (loan) needed to buy a property, so buyers require a smaller amount saved as a deposit. Under this scheme, first time buyers need as little as a 5% deposit to qualify for a mortgage. This is due to end in the first few months of 2017. The research from mortgage insurer Genworth says this will mean a return to 20% deposits, which would see the average time needed to save for a deposit rise from three years to over 10 years.

"Trying to buy your first home in the current climate is like chasing a runaway train. Even with good salaries that could comfortably support a mortgage, thousands of aspiring first time buyers can only save modest sums, especially those who are already paying rent. This deposit trap is why many feel they are left with the all or nothing choice of borrowing from family or waving goodbye to ever owning a home," said Simon Crone, a vice president at Genworth.

"Help to Buy has significantly improved access to mortgages with deposits that are actually realistic to save. The numbers using the scheme may be modest, but it has made significant inroads in the short-term to boost access at the lower end of the property market," he pointed out.

(Source: adapted from http://www.propertywire.com/news/europe/uk-first-time-buyers-201409309641.html September 2014)

Extract B

Housing and flood defences

A radical new approach to housing and a £2.3 billion of investment in flood defences were announced as part of the UK Government's new National Infrastructure Plan 2014.

One key proposal is for the government to plan, build and sell homes. An initial programme on a government-owned former airfield near Cambridge will see the development of 10 000 homes. This approach will fast track the development by providing certainty and making new homes available more quickly.

The government will make the initial investment but expects that later costs will be met through the sale of land and homes. It will also evaluate the feasibility and economic effects of rolling out this model on a wider scale, to support and accelerate housing supply.

The plan also commits to £2.3 billion of capital investment to over 1400 flood defence projects in a 6-year programme of investment. As a result, over 300 000 homes will be better protected and over £30 billion of economic damages prevented. Major projects that will benefit include £42 million for the Oxford Flood Alleviation Scheme, £80 million for the Humber Estuary and over £17 million for Tonbridge, Yalding and the surrounding communities.

(Source: adapted from https://www.gov.uk/government/news/ambitious-plans-for-housing-flood-defence-and-roads-set-out-in-national-infrastructure-plan-2014)

Q) 6 (f) Evaluate the likely microeconomic effects of government intervention in the UK housing market.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figure 1 and the following extracts (A and B) before answering Question 6.

Answer ALL Question 6 (a) to 6 (e), and EITHER Question 6 (f) OR Question 6 (g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

The market for cigarettes

Figure 1: Price elasticity of demand - a comparison between tobacco and e-cigarettes

Price of packet of 20 tobacco cigarettes £7.70–£9.50	Price of e-cigarette kit £9.99–£19.99
Average price per tobacco cigarette 48p	Single cigarette equivalent price of an e-cigarette 7p
Price elasticity of demand for tobacco cigarettes –0.35	Price elasticity of demand for e-cigarettes –1.9

(Source: adapted from https://www.blucigs.co.uk/united-kingdom/kits/all-kits)

Extract A

Government intervention on tobacco

There was a time when smoking was fashionable. Television and magazine advertisements glorified smoking. Everyone from your dad to your doctor smoked in all places – cars, restaurants and even hospitals.

Tobacco is still the single biggest cause of cancer in the world and the leading cause of preventable deaths. Nearly 80% of the 1 billion smokers worldwide live in low- and middle-income countries.

Bans on tobacco advertising, promotion and sponsorship can reduce tobacco consumption. Comprehensive smoking bans covering indoor workplaces, public places and public transport have been introduced in 48 countries.

Tobacco taxes are the most cost-effective way to reduce tobacco use, especially among the young and people in low-income groups. A tax increase that raises tobacco prices by 10% decreases tobacco consumption by 4% in high-income countries and 5% in low- and middle-income countries.

However, some 8 million people are expected to die each year by 2030 – because they have smoked tobacco or have been exposed to passive smoking. The use of alternative products such as electronic cigarettes (e-cigarettes) are gaining in popularity but information about their effects is uncertain. Little research has yet been done about the long-term health effects of e-cigarettes and the nicotine dispensed by e-cigarettes is highly addictive. The illegal tobacco market still counts for 1 in every 10 cigarettes consumed globally. In addition, tobacco companies still spend tens of billions of dollars each year on advertising and promoting tobacco products and sponsoring events. They continuously challenge the regulatory measures governments are taking.

(Source: adapted from http://www.who.int/topics/tobacco/en/ and http://www.who.int/mediacentre/commentaries/reducing-tobacco-use/en/)

Extract B

Free market approach

Are free markets incompatible with good health? If the solution to every problem involves banning advertising, raising prices and restricting availability, you might easily conclude that the free market is the disease and government regulation is the cure. From this perspective, the providers of food, alcohol and tobacco are determined to push the most unhealthy products on the public at the lowest prices.

Contrary to this viewpoint, the profit motive is not unhealthy. Businesses have an obvious incentive to keep their customers alive and customers have a strong incentive to seek out healthier options. Any company that can make a scientifically sound health claim gains a competitive advantage over its rivals. Health sells. In contrast, government regulation can lead to negative health outcomes. Markets can correct themselves long before government failures are even acknowledged. Over a million Britons, almost all of whom are smokers or ex-smokers, use e-cigarettes, as a less hazardous product than cigarettes and yet e-cigarettes face increased regulations and in many countries they are banned.

It is neither consistent nor ethical to prevent smokers from switching to much safer alternatives. Efforts to regulate e-cigarettes are a far greater threat to public health than the products themselves.

We argue that the interests of consumers are nearly always better advanced by the provision of accurate information and free choice than by prohibitions and regulations. The government policy of small but steady tax rises on tobacco and ever-larger warning labels is becoming less effective and leads to unintended consequences.

(Source: adapted from http://www.iea.org.uk/blog/free-market-solutions-in-health-should-be-allowed-to-flourish, Christopher Snowdon, 11th July 2013)

Q) 6 (g) Evaluate the impact of government intervention in the cigarette market.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

SECTION B

Read Figures 1, 2, 3 and the following extracts (A to B) before answering Question 6.

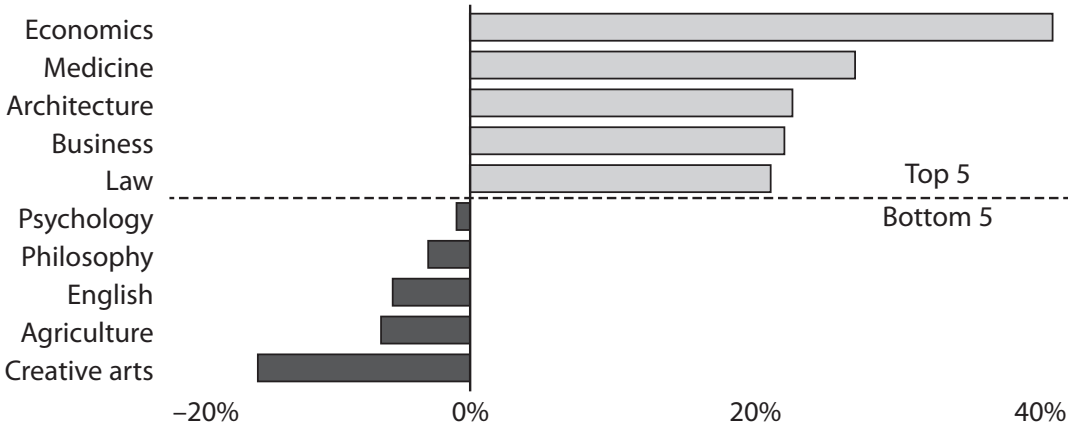
Answer ALL questions 6(a) to 6(e) and EITHER Question 6(f) OR Question 6(g).

You are advised to spend 1 hour and 5 minutes on this section.

Question 6

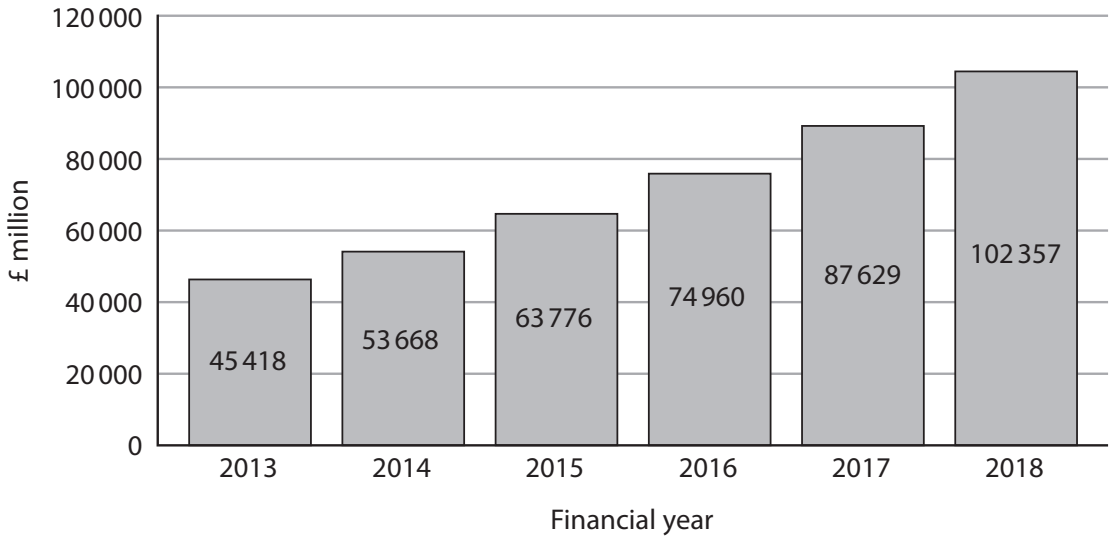
The market for higher education in the UK

Figure 1: Average graduate earnings, according to subject studied, compared to average non-graduate earnings (per cent) 2018 selected subjects.



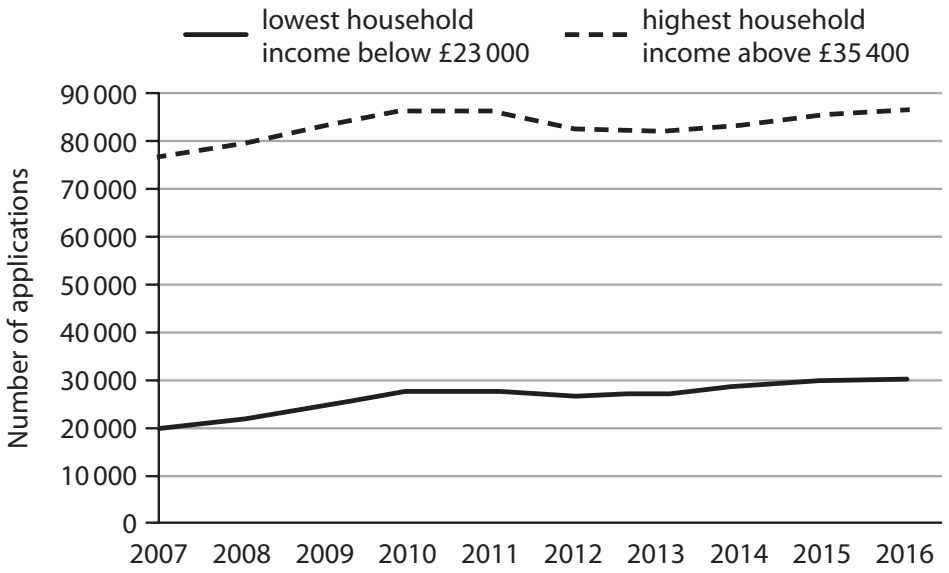
(Source: adapted from https://www.ifs.org.uk/publications/13731
The impact of undergraduate degrees on early-career earnings, Research report, November 2018)

Figure 2: Student loans outstanding at the end of financial years 2013 to 2018 in England



(Source: adapted from https://www.slc.co.uk/official-statistics/student-loans-debt-and-repayment/england.aspx)

Figure 3: Number of applications to UCAS according to median income of area



(Source: adapted from https://www.ucas.com/corporate/data-and-analysis/ucas-undergraduate-releases/2018-cycle-applicant-figures-january-deadline)

Extract A

Rethinking tuition fees

The value of a degree is significant. The latest data shows that the median university graduate income was £10 000 more than the average non-graduate income in 2018. This 'graduate premium' means graduates will contribute significantly to the economy. In addition, the government will benefit greatly from additional tax revenues.

However, funding higher education continues to be a major issue. English universities charge some of the world's highest fees. Interest rates on student loans are now 6.3%. There are a large number of courses where graduates are likely to earn less than non-graduates, despite an average of £50 000 of debt.

The Department for Education estimates that 45% of the value of loans will not be repaid. Outstanding student loans in England totalled more than £100 billion in 2018. By 2023 total outstanding student loans are forecast to rise to £120 billion.

One option for revising student fees could be to charge higher fees for courses that are more expensive to teach or that have a better chance of higher earnings. That would make Science or Mathematics degrees more expensive to study than English or Philosophy.

At most universities the level of fees is likely to be the same flat rate of £9 250 per year. However, science-based courses need more expensive equipment and courses such as medicine require more teaching time and personal instruction.

Tuition fees were introduced in 1998 at £1 000 per year. They are currently £9 250. Economists estimate that the price elasticity of demand for higher education is about –0.5.

Charging £9 250 a year for an undergraduate degree makes England very expensive by international standards. Scotland has no fees for Scottish students, and fees in Wales and Northern Ireland are significantly lower. Much of Europe has low or no fees and Germany, which used to charge fees, has abolished them, replacing them with a graduate tax.

The only country with comparable fees is the United States. Top private colleges can charge more than the equivalent of £30 000 per year while state colleges can charge local students less than fees in England.

Despite this, student numbers at English universities have continued to increase from 450 000 in 1998 to over 700 000 in 2018. Students from all backgrounds are more likely to go to university than ever before.

However, applicants from low-income areas are much less likely to go to university than applicants from high-income areas. The Universities and Colleges Admissions Service (UCAS) found that in the most deprived 10% of postal areas about 20% of young people went to university in 2018, compared with 50% in the highest income areas. Research by University College London revealed that even when candidates from low-income areas had the same exam results, they were much less likely to apply to university than candidates from high-income areas.

(Source: adapted from https://www.theguardian.com/education/2018/dec/16/change-in-student-loan-accounting-could-add-10bn-to-national-debt)

Extract B

Low-income university students twice as likely to drop out than high-income ones

The number of students from low-income areas who drop out of university before finishing their degree is at its highest in five years, indicating a considerable waste of scarce educational resources. This news comes at the same time as a drive to recruit students from poorer backgrounds, with universities spending a total of £725 million on access initiatives in the past academic year alone.

A number of top universities have started to lower their A level grade offers to students from low-income areas, in an attempt to encourage them to apply. However, there is a danger with 'enticing' disadvantaged students through lower grade offers, if universities are not going to provide ongoing support for them once they begin their courses.

The latest figures show that 9% of disadvantaged undergraduates do not continue in higher education beyond their first year. In comparison, the average drop-out rate among students from the high-income backgrounds was less than 5%. The gap continues to widen.

A report, published by the Office for Fair Access, concluded that: 'The significance of this for students is huge. Higher education can be a transformational experience that opens doors to rewarding careers and social mobility, but this is only the case if students achieve successful outcomes.'

(Source: adapted from https://www.telegraph.co.uk/news/2017/06/28/number-poor-students-dropping-university-highest-level-five/)

Q) 6 (g) Evaluate whether government intervention is able to correct market failure in education.

(20)

(Total for this part = 20 marks)

Continue on separate paper if required.

7 High Speed 2 (HS2) was a £100 billion UK government rail project designed to expand the existing network. The journey time between London and Manchester would take just 1 hour and 11 minutes, 54 minutes quicker than today's fastest time. Almost 900 homes, 1 000 businesses and around 60 ancient woodlands would be destroyed by its construction. (Source: adapted from https://www.independent.co.uk/climate-change/news/hs2-railway-route-houses-demolish-woodland-destroy-environment-impact-london-birmingham-manchester-a8582316.html)

Q) Evaluate the likely microeconomic effects of building major infrastructure projects.

(25)

(Total for this part = 25 marks)

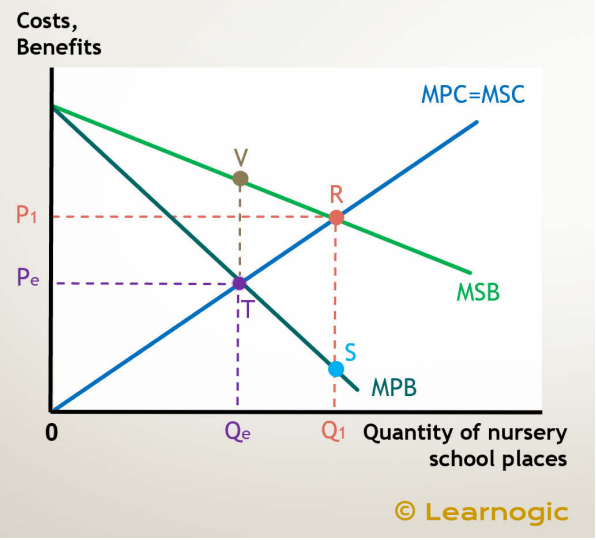
Continue on separate paper if required.

MARK SCHEMES

official mark schemes

Question Number	Answer	Mark
2(a)	**Knowledge 1** **Knowledge/understanding** 1 mark for definition of external benefits e.g. • Positive externality (1) • When the social benefits of an economic action are greater than the private benefits (1) • External benefits = social benefits – private benefits (1) • Benefits accruing to a 3rd party (1) • Spillover effects (1) • Outside the price mechanism (1)	**(1)**

Question Number	Answer	Mark
2(b)	B	**(1)**

Question Number	Answer	Mark
2 (c)	**Application 2** Identify welfare gain area VTR (1) Annotate or identify the social optimum output as Q_1 or R or S (1)  	**(2)**

Question Number	Answer	Mark
3 (a)	C	**(1)**

Question Number	Answer	Mark
3(b)	**Knowledge 1, Application 2** **Knowledge** One mark for identifying measure e.g. • tax on water or water consumers (1) OR • regulation (1) OR • subsidise water efficiency or substitute water provision to lake (1) OR • permits (1) **Application** 2 marks for linked application (1+1), e.g. • increased taxes/regulation would make it more expensive/less profitable (1) reducing consumption (1) • diagram e.g. showing supply shifting in (1) and quantity falling (1)	**(3)**

Question Number	Answer	Mark
3(a)	**Knowledge 1** **Knowledge** 1 mark for definition, e.g. • Government grant (1) or government policy designed to encourage production or consumption (1) money given (1)	**(1)**

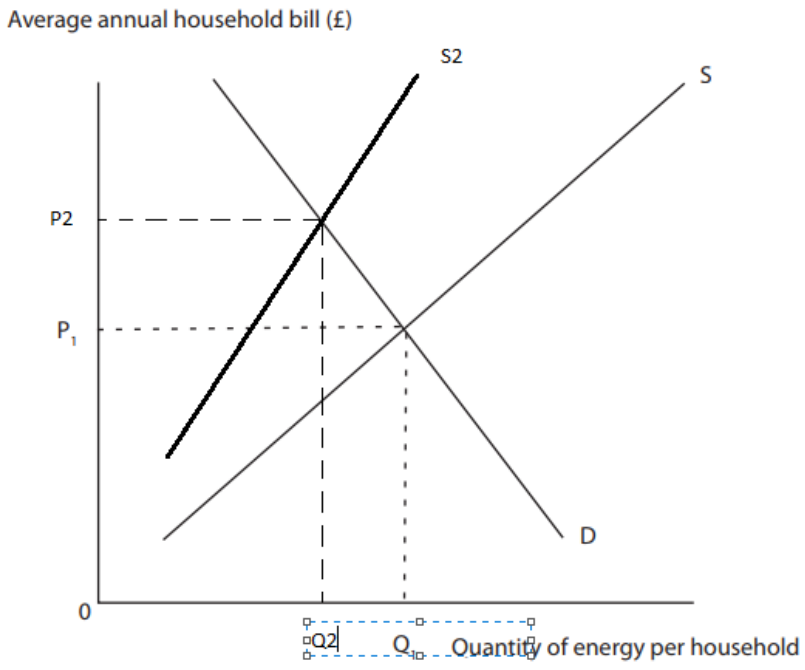
Question Number	Answer	Mark
3(b)	**Knowledge 1** C	**(1)**

Question Number	Answer	Mark
3(c)	**Application 2** **Application** 2 marks for e.g. • New supply curve drawn and labelled, showing an inwards/leftwards shift (1) • New equilibria labelled, showing a rise in price and/or decrease in quantity (1) OR 2 marks for e.g. • New demand curve drawn and labelled, showing an inwards/leftwards shift (1) • New equilibria labelled, showing a decrease in price and/or decrease in quantity (1)	**(2)**

Question Number	Answer	Mark
5(a)	**Knowledge 1, Application 1, Analysis 1** **Knowledge/Understanding** 1 mark for identifying/defining excess demand, shortage **Application** 1 mark for application to university education, e.g. • Diagram indicates cut in tuition fees from £9 000 to £6 000 (1) • Universities lack cash so close down departments (1) • University now more affordable for applicants (1) **Analysis** 1 mark for linked development, e.g. • Lower maximum price illustrated or explained, price below market equilibrium (1) • Extension in demand, movement forwards along demand curve if drawn (1) • Contraction in supply of university places, movement backwards along supply curve (1)	**(3)**

Question Number	Answer	Mark
5(b)	A	**(1)**

Question Number	Answer	Mark
4(a)	**Application 1** **The only correct answer is A** ***B*** *is not correct because the candidate has mistakenly divided 1070 by 0.5* ***C*** *is not correct because the candidate has mistakenly multiplied 1070 by 1.005* ***D*** *is not correct because the candidate has mistakenly multiplied 1070 by 1.05*	**(1)**

Question Number	Answer	Mark
4(b)	**Application 2**  1 mark for skewed (pivoted) leftward shift of supply curve 1 mark for new equilibrium **NB if a parallel leftward shift of supply with correct new equilibrium maximum 1 mark**	**(2)**

Question Number	Answer	Mark
4(c)	**Knowledge 1** **Knowledge** 1 mark for definition, e.g. an indirect tax is imposed on producers (suppliers) by the government (1) tax on good or service which is added to their price (1) tax on consumer expenditure (1)	**(1)**

Question Number	Answer	Mark
5(a)	**Application 1** **The only correct answer is C** ***A*** *is not correct because they may multiplied 8.75 by -0.1* ***B*** *is not correct because they have mistakenly taken 2017 as the original year in the percentage change calculation* ***D*** *is not correct because the percentage change in quantity demanded has not been multiplied by -0.1.*	**(1)**

Question Number	Answer	Mark
3(a)	**The only correct answer is C** ***A*** *is not correct because the supply curve shift has been ignored* ***B*** *is not correct because this is the cost to the consumer* ***D*** *is not correct because this is the total amount received by the producer*	**(1)**

Question Number	Answer	Mark
3(b)	**Knowledge 1, Application 1, Analysis 1** **Knowledge/Understanding** 1 mark for identification of opportunity cost e.g. the next best alternative forgone. **Application** 1 mark for specific reference to government spending e.g. schools and hospitals. **Analysis** 1 mark for analysis of problem e.g. the economic and social case for a subsidy should be judged carefully on the grounds of efficiency and fairness. Government subsidies inevitably carry an opportunity cost and in the long run there might be better ways of saving energy.	**(3)**

Question Number	Answer	Mark
4(a)	**The only correct answer is C** ***A*** *is not correct because* OP_1HQ_1 *is the total cost of the product plus tax revenue producers' share of the tax* ***B*** *is not correct because* P_2P_1HJ *is the consumers' share of the tax* ***D*** *is not correct because* P_3P_2JK *is the producers' share of the tax*	**(1)**

Question Number	Answer	Mark
4(b)	**Knowledge 1, Application 1, Analysis 1** **Knowledge/understanding** 1 mark for correct definition of specific tax e.g. specific tax is a set amount per unit of the product sold **Application** 1 mark for e.g. of specific tax such as: • fuel duty • alcohol and tobacco duty • gambling duties • air passenger duty • sugar tax **Analysis** 1 mark for linked development e.g. to internalise the externalities accruing to the consumption of products causing external costs (1). Reference to 'sin taxes' (1). Raising revenue (1).	**(3)**

Question Number	Answer	Mark
5(a)	**Knowledge 1** **Knowledge/understanding** 1 mark for definition, e.g. This occurs when government intervention in the economy causes a net welfare loss/decline in economic welfare.	**(1)**

Question Number	Answer	Mark
5(b)	**Knowledge 2** **Knowledge** 1 mark for reason and 1 for linked development Possible answers include: • Positive externalities (1) resulting from people using railways rather than roads (1) • Risk/imperfect information (1) if the project is undertaken by the private sector it may be less likely to happen (1)	**(2)**

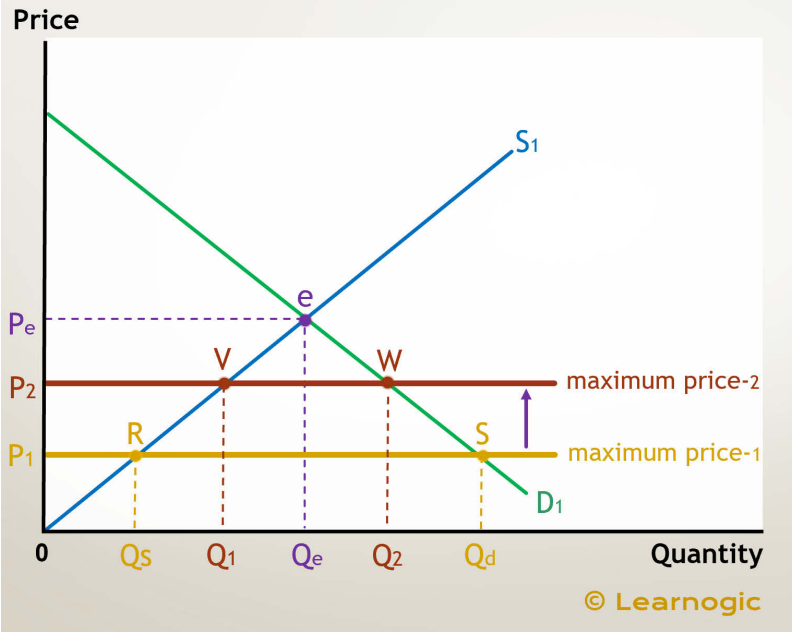
Question Number	Answer	Mark
5(c)	**The only correct answer is A** ***B*** *is not correct because this would cause the demand for rail travel to shift to the left* ***C*** *is not correct because this would cause the supply curve to shift to the right* ***D*** *is not correct because this would cause the supply curve to shift to the right*	**(1)**

Question Number	Answer	Mark
2 (a)	**Knowledge 1** **Knowledge** 1 mark for accurate definition e.g. A minimum price is the lowest price that can legally be set (1) The price floor below which cannot be charged (1)	**(1)**

Question Number	Answer	Mark
2(b)	**The only correct answer is B** ***A*** *is not correct because it is the loss of consumer surplus resulting from the minimum price* ***C*** *is not correct because it is the gain in producer surplus resulting from the minimum price* ***D*** *is not correct because it is the amount spent by the consumer and the EU*	**(1)**

Question Number	Answer	Mark
2(c)	**Knowledge 2** **Knowledge** 1 mark for identifying likely problem and 1 mark for linked development. **One** problem e.g. • At P2 there is a surplus/ excess supply (1) which has to be paid for through higher taxes (1) • This surplus may have to be stored (1) The surplus storage will cost money to maintain the facilities (1) • Opportunity cost of the intervention buying (1) e.g. spending on education (1) • Unintended consequences (1) e.g. firms increase supply (1) • Reference to 'underground markets' • Higher prices for consumers	**(2)**

Question Number	Answer	Mark
1(a)	**The only correct answer is C** *is not correct because this is the change divided by the new price* *is not correct because this is a distractor* ***D** is not correct because 694 is the change in price*	**(1)**

Question Number	Answer	Mark
1(b)	**Application 2** Identifies original maximum price below equilibrium (1) Identifies the new maximum price above original (1) £1277 (1) & £1971(1) for new and original permitted  	**(2)**

Question Number	Answer	Mark
1(c)	**Knowledge 1** **Knowledge/Understanding:** 1 mark for definition, e.g. • The price at which supply equals demand. • The balanced point with no tendency to change • No excess demand or excess supply • Market clearing price	**(1)**

Question Number	Answer	Mark
2(c)	B	**(1)**

Question Number	Answer	Mark
3(a)	**Application 2** **Application:** 568 × 1.8 million (1) Accept 1022 million or 1022.4 million for 2 marks. Accept 1,022,400,000 **NB If million is missing from the answer award up to 1 mark**	**(2)**

Question Number	Answer	Mark
3(b)	**Application 2** **Application:** 1 mark for the percentage of subsidy for consumers: **71 ÷ 568 X 100 = 12.5%** (1) 1 mark for the percentage of subsidy received by producers: **497 ÷ 568 X 100 = 87.5%** (1) Award 1 mark if the answers are transposed **NB** if no correct calculations, award up to 1 mark for: correct annotation of diagram depicting consumer and producer subsidy areas OR the actual consumer subsidy per unit (71 rupees) and producer subsidy per unit (497 rupees) OR consumer subsidy (127.8 million rupees) and Producer subsidy (894.6 million rupees)	**(2)**

Question Number	Answer	Mark
3(c)	A	**(1)**

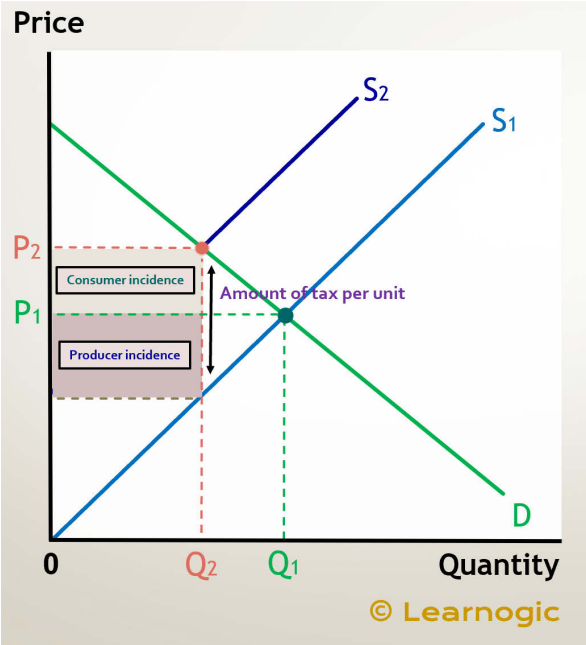
Question Number	Answer	Mark
2(a)	**Application 2** **Application:** 1 mark for appropriate calculation e.g. £2 ×73 million = £146 million (1) **OR** £0.24 ×73 million = £17.52 million (1) **OR** £1.76 ×73 million (1) **OR** correct answer with no millions (1) Answer = **£128.48 million** (accept between £128 million and £129 million) **Award 2 marks for correct answer (128m)**	**(2)**

Question Number	Answer	Mark
2(b)	**Knowledge 1, Analysis 1** **Knowledge:** 1 mark for e.g. • The demand for use of gaming machines is likely to increase (1) • It is a substitute for national lottery tickets (1) • Substitutes have a positive cross elasticity of demand (1) **Analysis:** 1 mark for e.g. • Increase by 128% in response to a 100% increase in the price of national lottery tickets (1) • 1.28 cross elasticity of demand indicates they are **close** substitutes (1)	**(2)**

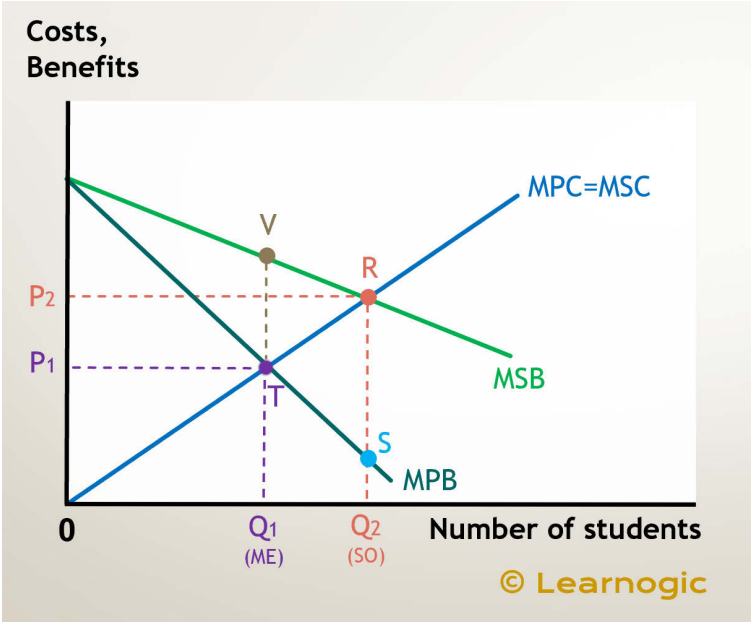
Question Number	Answer	Mark
2(c)	**The only correct answer is C** ***A*** *is not correct because the flood defence scheme is non-exclusive* ***B*** *is not a private good because flood defence scheme is non-exclusive so you are unable to charge private individuals that benefit from the scheme* ***D*** *is not correct because it is a distractor in lacking meaning but also indicating that the candidate is confusing rivalry with the non-rivalrous nature of public goods*	**(1)**

Question Number	Answer	Mark
3 (a)	**Application 2** **Application 2:** 1 mark for appropriate calculation /formula e.g. $\frac{1.3 \times £489\,000}{100}$ (1) **OR** 489 000 ×0.013 (1) Answer = **£6 357** **Award 2 marks for correct answer (6 360)**	**(2)**

Question Number	Answer	Mark
3(b)	**The only correct answer is C** ***A*** *is not correct because the candidate has mistakenly done the average house price in North East of England to the average house price in London* ***B*** *is not correct because the candidate has made a computational error* ***D*** *is not correct because the candidate has made a computational error*	**(1)**

Question Number	Answer	Mark
1(a)	**Knowledge 2, Application 2** **Knowledge** - Correct drawing of a demand and supply diagram annotated to show a parallel left (1) shift in the supply curve (1) **Application** - consumer tax incidence shown (1) - producer tax incidence shown (1)  **NB: Award application mark for correctly identifying on diagram amount of tax per litre is set at 58 pence per litre. PED does not have to be price inelastic.**	**(4)**

Question Number	Answer	Mark
1(b)	**Analysis 1** **The only correct answer is A** ***B*** *is not correct because both consumer surplus and producer surplus decrease* ***C*** *is not correct because producer surplus decreases* ***D*** *is not correct because consumer surplus decreases*	**(1)**

Question Number	Answer	Mark
2(a)	**Knowledge 2, Application 2** 1 mark for the original market equilibrium where MPB = MSC (=MPC) 1 mark for correct shift from MPB to MSB 1 mark for showing the external benefit V to T 1 mark for welfare gain identified VRT 1 mark for the new equilibrium identified where MSB equals MSC (R) or (S) or Q2 Social Optimum. Diagram required e.g.  	**(4)**

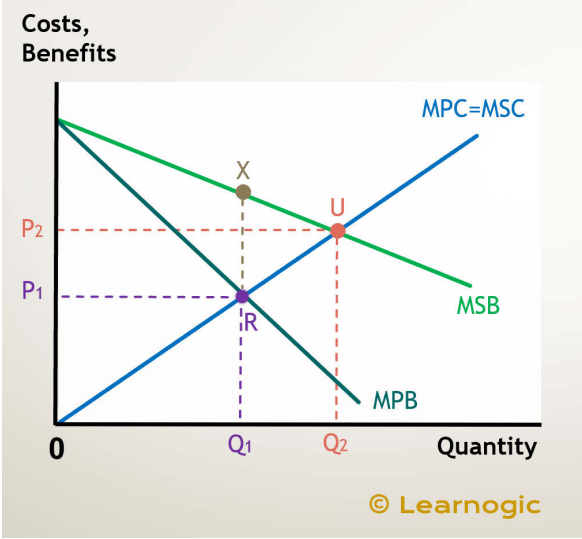
Question Number	Answer	Mark
2 (b)	**Analysis 1** **The only correct answer is C** ***A*** *is not correct because an external benefit to a third party is not identified* ***B*** *is not correct because an external cost to a third party is not identified* ***D*** *is not correct because a private cost plus external cost to a third party is not identified*	**(1)**

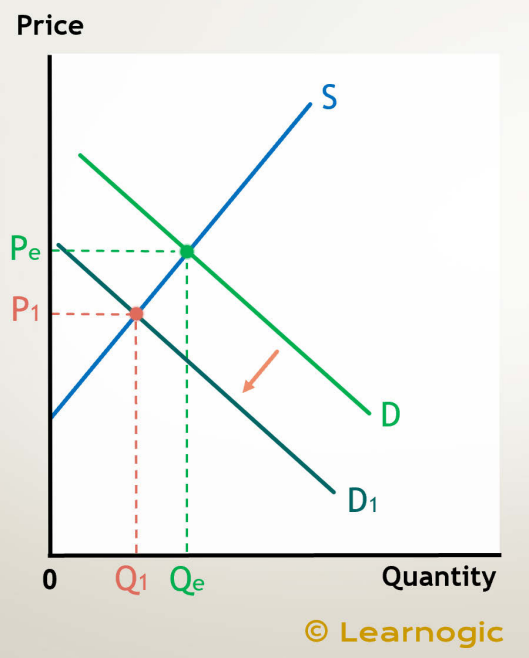
Question Number	Answer	Mark
3 (a)	**Knowledge 2, Application 1, Analysis 1** **Knowledge and Application** 1 mark for understanding of pollution permits (1) 1 mark for appropriate linkage to industry/market/firms (1) 1 mark for how reducing permits reduce pollution (1) Award use of diagrams, for example: shifts the supply of permits inwards (1) which will push up the price per permit (1) OR Negative externality reduced **Analysis:** 1 mark for linked development of market incentives/government revenue e.g. Reducing pollution/Increase in price of permits (1).	**(4)**

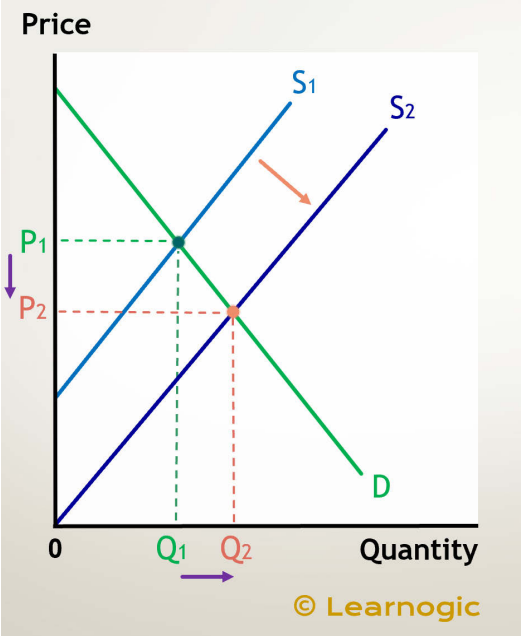
Question Number	Answer	Mark
3 (b)	**Analysis 1** **The only correct answer is B** ***A*** *is not correct because regulation may cause the distortion of price signals as a problem* ***C*** *is not correct because regulation may result in the problem of information gaps* ***D*** *is not correct as regulation may result in the problem of excessive administrative costs*	**(1)**

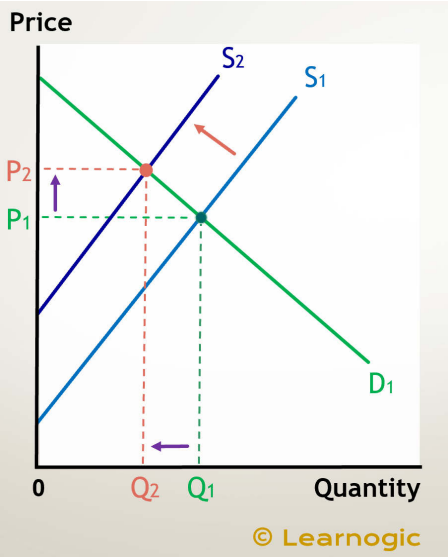
Question Number	Answer	Mark
4 (a)	**Knowledge 1, Analysis 1** **Knowledge / understanding and Analysis e.g :** • Total cost rises (1) at an increasing rate (1) • Total costs continue to rise (1) but more steeply (1) • MC > AC, therefore AC rises (1) • • MC > AC (1) therefore TC increases at a faster rate (1) candidates may draw the TC curve to show it rising more rapidly NB : responses may be shown on the diagram beyond point Z.	**(2)**

Question Number	Answer	Mark
3(a)	**The only correct answer is A** ***B*** *is not correct because making normal profit happens when AR=AC* ***C*** *is not correct because making supernormal profit means AR>AC* ***D*** *is not correct because the firm is not productively efficient*	**(1)**

Question Number	Answer	Mark
3(b)	**Knowledge 2, Application 2** • 1 mark for MSB above MPB • 1 mark for the original market equilibrium where MPB=MPC at Q_1 • 1 mark for the social optimal equilibrium where MSB=MSC at Q_2 • 1 mark for welfare gain area UXR identified Diagram required e.g.  **NB MSB may be parallel or pivoted**	**(4)**

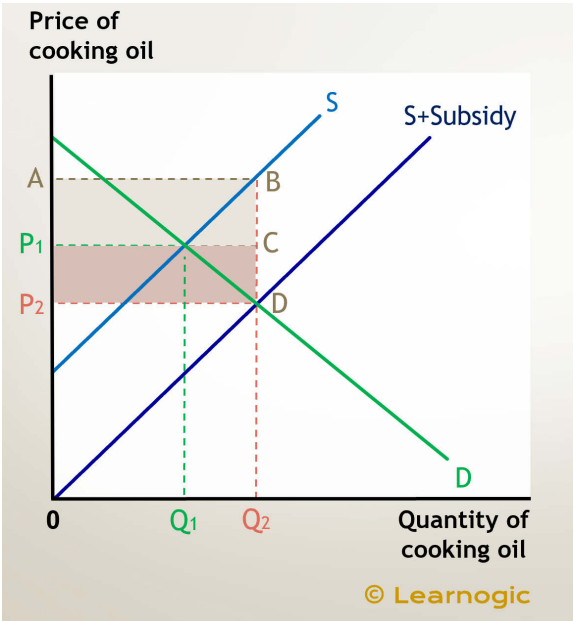
Question Number	Answer	Mark
6(a)	**Knowledge 1, Application 2, Analysis 2** **Knowledge** 1 mark for definition of revenue or may identify clearly in diagram (1) **Application** 1 mark for using source data or linking ban to reduced consumption (1) and 1 mark for diagrammatic link to change in revenue (1), e.g. • "can reduce tobacco consumption" (1) leading to decreased revenue as shown in diagram (1) **Analysis** Diagram showing demand shifts left or becomes less price inelastic (1) and new equilibrium (1)  	**(5)**

Question Number	Answer	Mark
6(a)	**Knowledge 1, Application 1, Analysis 3** **Knowledge and Analysis:** (up to 4 marks) Correctly labelled diagram annotated to show a shift right in the supply curve (2) e.g. rise in subsidy  **NB: also accept a double shift right indicating an increase in subsidy.** **NB: also accept a rise in price, given prices annually linked to RPI, but less than it would have been.** **NB: 2 KAA marks are reserved for an accurate diagram** Explanation that subsidy increase is a rise in financial assistance OR cut in cost of production OR additional cash grant (2) Explanation that decreasing costs borne by producers is passed on to consumers as a fall in rail fares OR excess supply results in fall in rail fares (2) **Application:** 1 for reference to Figure 1 e.g. subsidy rises around £11 million (1) subsidy rises from £277 million to £287.9 million (1) subsidy increased by 3.9% (1)	**(5)**

Question Number	Answer	Mark
6(a)	**Knowledge 1, Application 2, Analysis 2** **Knowledge** 1 mark for original supply and demand diagram with original equilibrium **Application** 2 marks for using source data explaining change in supply e.g. • Cod catch limits cut (1) by 50% (1) • Reduced limited TACs agreed for Celtic Sea/Irish Sea/west of Scotland (1) • Relevant use of data from Figure 1 (1+1) e.g. Identifying the country that is overfishing (1) Identifying the amount of overfishing (1) **Analysis** Accurate diagram – showing price rise or candidate states price rise (1) correct shift in supply (1) e.g.  	**(5)**

4(a)	**Knowledge 2 Application 1 Analysis 1** **Knowledge and Analysis: Up to 3 marks for one reason e.g.** • Maximum price is the ceiling price above which the price does not go (1) • Maximum price is set below the market equilibrium price (1) • Increases student affordability (1) causing an extension in demand / low-income students increase uptake (1) • Encourages consumption (1) internalising external benefits / third party effects (1) • Increase in consumer surplus (1) because the price of tuition has fallen (1) • Government may want to increase the proportion of young people at university (1) to increase future labour productivity (1) and therefore increase the external benefit/tax yield/revenue (1) **Application: Up to 1 mark for a relevant example e.g.** • Maximum undergraduate tuition fees in England are £9 250 (1) • Fees at the same level for 2 years (1) **NB A diagram may be used to earn knowledge, application or analysis marks (2)** **NB Must be one reason**	**(4)**

Question Number	Answer	Mark
4(b)	**The only correct answer is B** ***A*** *is incorrect as there would be an extension in demand* ***C*** *is incorrect as there would be excess demand* ***D*** *is incorrect as there would be a contraction in supply*	**(1)**

Question Number	Indicative content	Mark
2(a)	**Knowledge 2, Application 2, Analysis 1** **Knowledge and analysis** **Up to 3 marks; points might include:** • Understanding of what a **cost** of subsidy is (1) e.g. opportunity cost to the government (1) **Maximum 2 marks for an effectively used diagram.** Diagram may show: ○ shift right in supply (1) ○ the total amount of government spending/cost e.g. $ABDP_2$ (1) ○ subsidy per unit e.g. B to D (1) ○ area of producer subsidy (1) ○ area of consumer subsidy (1) ○ lower price e.g. P1 to P2 (1) Diagram e.g.  **NB Only award *consumer* subsidy diagram with an increase in demand if fully justified**	**(5)**

Question Number	Answer	Mark
6(d)	**Knowledge 2, Application 2, Analysis 2** **Knowledge/understanding 2** Explanation of role/ relationship between the two products and how are substitutes (1) and that they have a positive XED (1) **Application 2** Reference to information from extract involving; environmental messaging/ litter posters/ 25p charge *i.e. Environmental messaging in cafes, for example posters about litter (1), increases the use of reusable coffee cups by 2.3% (1)* *The availability of reusable cups leads to an increase of 2.5% (1) whereas the distribution of free reusable cups leads to a further increase of 4.3% (1)* **Analysis 2** Reference to reusable cups being cheaper (1)– discussion of consumers switching due to price differentials (1) Diagram awardable showcasing demand falling (1) for single use cups with relevant explanation (1) Messaging helps to reduce asymmetrical information (1) in regards the increased external costs of single-use cups (1) Could showcase the XED and role of both reusable vs single use cups - award relevant diagram (1) with explanation (1)	**(6)**

Question Number		Mark
1(c)	**Knowledge 2, Application 2, Analysis 2, Evaluation 2** **Knowledge (1+1)** e.g. • Fall in consumption of non-renewable products (1) • Rise in tax revenues (1) • Reduction in external costs/greater environmental awareness (1) • Soft touch regulation/allows consumer choice (1) **Application (2 or 1+1)** e.g. • Use of reusable cups as a means of reducing demand for disposable cups (i.e. a substitute, Extract C) (1) • Extract B – 5p charge is a small proportion of £2.60 (1) • 85% reduction in plastic bags (1) • This might be illustrated through the use of a correct supply curve shift, e.g. a fall in consumption or production of cups on x axis (1) **Analysis (1+1)** e.g. • Indirect taxes may raise prices (1) • Increases in costs of production (1) • Link between unit tax, tax revenue and reduction in demand for cups (1) • A supply and demand diagram showing an indirect tax (supply shift upwards/leftwards) or an externalities diagram might be used (1) • tax revenue could be used to subsidise other products, e.g. recyclable cups (1) **Evaluation** (2 marks for any relevant point or 1+1). Points might include: • It depends if the tax is passed on to the consumer • Other policies may be considered e.g. new recycling specialist facilities, regulation • PED might be used, e.g. a 5p tax on the price of a £2.60 coffee might have very little effect on demand, or, a cup of coffee may be a small percentage of consumer income, depends on the availability of substitutes • Regressive nature of the tax – has a greater effect on lower incomes • Other approaches considered, e.g. subsidising reusable cups as in Ext B changing the technology in the recycling **NB award two advantages. A diagram can be credited as analysis or application (1+1) up to 2 marks in total.**	**(8)**

Question Number	Indicative content	Mark
6(b)	**Knowledge 2, Application 2, Analysis 2** • Help to Buy is a subsidy making home ownership more attractive • Cross (price) elasticity of demand (XED) measures the responsiveness of quantity demanded for one good to a change in the price of another good. • Identify home ownership and rented properties as substitutes • Likely positive cross elasticity of demand – Help to Buy scheme may result in decrease demand in rental sector • Deposit size 5% rather than 20% - demand increases • Demand for rental properties decrease – diagram showing shift inwards • Price and quantity of rental properties to fall • Consumer and Producer surplus in rented sector declines • Alternative views valid e.g. Help to Buy may increase house prices and therefore increase demand for rented accommodation from those not eligible for Help to Buy. Help to Buy shifted demand for private houses to the right (increase) and that, ceteris paribus, this would shift demand for rented accommodation to the left (reduction).	**(6)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1-2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no links between causes and consequences
Level 2	3-4	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relate them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or the answer may lack balance.
Level 3	5-6	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are applied appropriately to the broad elements of the question.

Question Number	Indicative content	Mark
6(b) continued	**Evaluation 4** • Scale – "modest" uptake of the Help to Buy scheme • Time-scheme due to end in 2017 • Scope – more likely to affect "lower end" of property market. • Closeness of substitutes – home ownership is purchasing an asset renting is a cost of living. • Scheme only affects first time buyers • PES – planning restrictions • Regional variations • Other factors more significant e.g. income • Candidates may refer to long-term investment in private rented sector as buy-to-let increasing demand for home ownership.	**(4)**

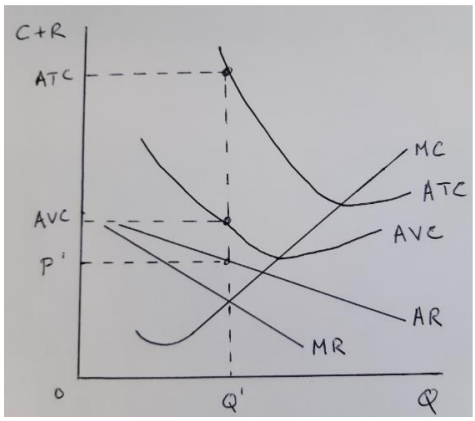
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1-2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3-4	Evaluative comments supported by chains of reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question.

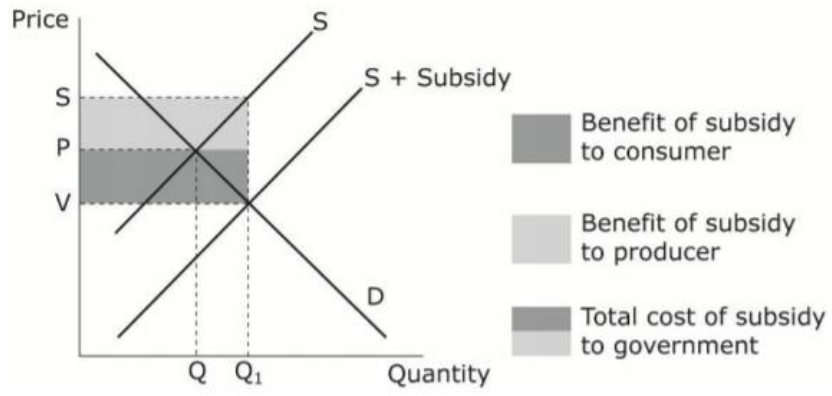
Question Number	Indicative content	Mark
1 (c)	**Knowledge 2, Application 2, Analysis 4** **Knowledge/implicit understanding:** Policies identified might include: • Indirect tax/charges • Ban or other regulation • Free bags/nets or other state provision • Fines • Behavioural economics policy **Application:** • Tax or charge on each item. Might be illustrated through a specific tax diagram or similar. • Ban in some parts of Turkey for specific types (carcinogenic black bags). Might be supported by a limit on supply diagram. • Fines for consumers and retailers in some parts of Turkey • Free bags/nets or other state provision in e.g. 20 000 in Corlu near Istanbul • 950 tonnes of plastic waste **Analysis:** • Explanation of process linking the intervention to the reduction in use of bags. • This might be shown through a diagram(s).	**(8)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	3–5	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but the answer may lack balance.
Level 3	6–8	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
1 (c) continued	**Evaluation 4** • Charges work in other countries, e.g. UK • Emerging economies/countries might have more problems facing the cost of interventions e.g. inequality issue, poverty • The problem is much wider than plastic/single use bags, and the interventions will only affect a few on-street purchases • Likely to succeed because it taps into the social conscience of consumers and even a small charge may have a dramatic impact as in the UK • The tax/charge makes up a small proportion of income so many have minimal impact. PED is very inelastic/close to zero • Unintended consequences: e.g. multiple-use/ bags for life often contain more plastic and unless used many times can be more environmentally damaging • First paragraph suggests they are everywhere so given habitual behaviour people may continue to use them despite charges/ tax • opportunity cost of giving away 20 000 bags in a month – is this socially efficient?	**(4)**

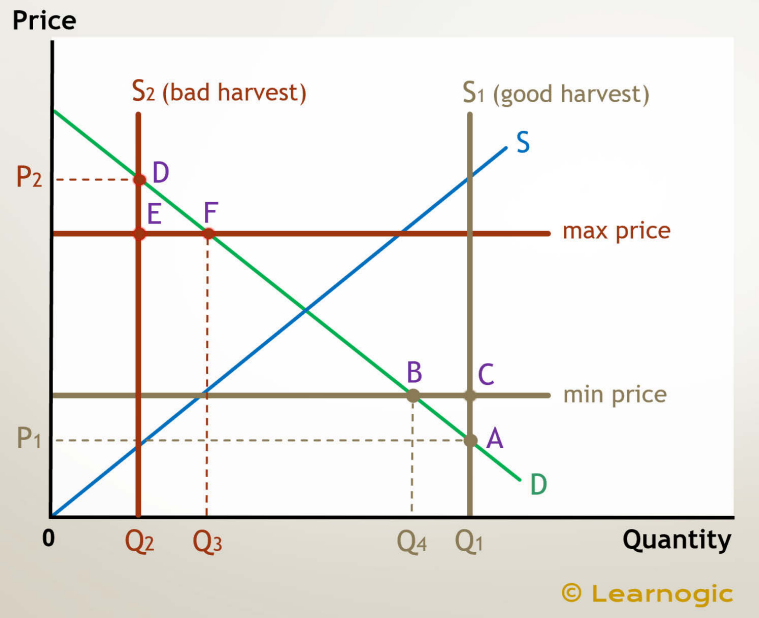
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evaluative comments supported by relevant reasoning and appropriate reference to the context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
6(d)	**Knowledge 2, Application 2, Analysis 4** **Case for subsidy:** • Subsidy is financial aid, grant • In long run required more to cover AC • Subsidy may have lowered AC, may be shown as shift on diagram • Benefit of subsidy to producer may cover their AVC in short-run or AC in long-run. • Avoid government rescuing 600 000 travellers • Avoid government paying benefits to up to 21 000 employees and those losing jobs in related industries e.g. hotels • Subsidy may have leveraged help from banks and shareholders • Thomas Cook may have recovered - Package holidays may have come back into fashion – aging population**.** Recession may have seen a rise in demand for package holidays as an inferior good, YED negative • Diagram may be used, for example:  OR	

	Incidence of a Subsidy  **NB a diagram is not required** **NB case against subsidy may be seen as KAA and case for as evaluation or vice versa.**	**(8)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	3–5	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but the answer may lack balance.
Level 3	6–8	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(d) continued	**Evaluation 4** **Case against subsidy** Lack of finance • £150 million not enough - £1.5 billion loss. • Needed help from bank loan (zombie-firm), shareholders or another company taking over Thomas Cook. Not willing to help. • £1.5 billion loss in May 2017, already in long-run • Cheaper and more effective to nationalise to rescue employees and suppliers Merger with MyTravel • Diseconomies of scale, LRAC>AR • Lack of synergy • Loss making business Falling demand for Package holidays • AR shifting in • Booking online through competitors rather than Thomas Cook high street outlets • Package holiday inferior good, YED negative. • Climate change – stay at home. Opportunity cost Dependency Government lacks funds- budget deficit Moral hazard No consequences for the failings of management will teach other businesses who get into commercial difficulties that government will pick up the pieces **NB: Case against subsidy may be seen as KAA and case for as evaluation or vice versa.**	**(4)**

2(c)	**Knowledge 2, Application 2, Analysis 4** **Knowledge and analysis** Problems might include: • costs of storage and security • perishability and quality issues • opportunity cost/ fiscal burden • distortion of price signals: government failure • consecutive good harvests: run out of funds to purchase stock • consecutive bad harvests: run out of stock to release/sell • not all producers may agree to be a part of the scheme eg undercutting prices/foreign dumping • difficult to set the "right" floor price: e.g. if floor price is set too high, then there will be surpluses every year • difficult to set the "right" ceiling price: e.g. if ceiling price is set too low, then there will be insufficient stocks available in times of a shortage • does not prevent all price fluctuations and therefore farmer revenues can still fluctuate. This may be shown by an accurately drawn and labelled diagram eg;  **NB Accept diagrams showing only minimum or maximum price** **NB A buffer stock diagram is not *required* for KAA Level 3**	**(8)**

	NB maximum of L2 without understanding of buffer stocks.	

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	3–5	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but the answer may lack balance.
Level 3	6–8	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
2(c) continued	**Evaluation 4** • Advantages of buffer stocks, e.g. ○ less starvation/food poverty ○ minimises food shortages ○ prices do not go too high/price stability ○ maintains farmers' incomes ○ more certainty in markets allows planning for investment/output ○ cheap for the government to operate as they buy at low prices and sell at high prices ○ governments can distribute free food at times of crisis (Extract F) ○ export rice (Extract F) Other evaluation might include: • not enough information to say e.g. storage, security and transport costs	

	• size of the buffer stock is small relative to total population • depends on the product being stored.	**(4)**

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and/or is critical of the evidence.

6(e)	**Knowledge 3, Application 3, Analysis 3** Government intervention to correct market failure – negative externalities of production Reduce overproduction – market output greater than social optimum Correct misallocation of resources – reduce welfare loss Reduce external cost/third party effects Government methods: • Indirect tax on electronic waste (specific) **or** on manufacturers of devices • Subsidies extending longevity of electronic items/ increase recyclable content • Provision of information/education – on electronic waste problems on packaging • Regulation – extending longevity of electronic items/ increasing recyclable content/fines for not recycling • Tradable pollution permits Reward relevant application e.g. candidates work out how much is not being recycled (700 000 tonnes) **NB for a level 3 answer there must be at least one reference to Extract D and two methods** **NB reward relevant diagram**	**(9)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but the answer may lack balance.

Level 3	7–9	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using
		relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(e) continued	**Evaluation 6** • Discussion of the effectiveness of the policies • Difficulty in measuring/quantifying and giving a monetary value to scale of negative externality/ overproduction/external costs • Consideration of the price elasticity of demand and supply/difficulty in changing behaviours • Some initiatives have worked in the past e.g. the recycling rate for big appliances, such as fridges and cookers, is about 80% • Depends on technological advances e.g. may reduce waste from small appliances/re-use/longer life-span of products • Information gaps: Consumers ignore the electronic waste labelling • Government failure: Unintended consequences - illegal dumping of small electronic products is likely to increase • Government failure: Excessive administrative costs – targeting subsidies, imposing fines • Timescale e.g. improving new products will take longer than recycling current items	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant chain of reasoning and appropriate reference to context. Evaluation recognises different viewpoints and/or is critical of the evidence.

Question Number	Indicative content	Mark

Question Number	Indicative content	Mark
6 (g)	**Knowledge 4, Application 4, Analysis 6** • Candidates may illustrate through use of appropriate diagram. • Public goods: non excludable and non rivalrous, e.g. flood defence schemes. • Failure of free market – free rider problem. • Externalities – positive or negative, e.g. housing may create these. • Information gaps: markets may have asymmetric information, e.g. insurance companies having incomplete information on risk of flooding. • Candidates may consider other types of government provision.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1-3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4-6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two-stage chain of reasoning only.
Level 3	7-10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance
Level 4	11-14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** • Unintended consequences. • Magnitude • Government failure, e.g. flood defences. • Opportunity cost of government provision. • Ineffectiveness of government provision, e.g. climate change – better to abandon areas, • Information gaps. • Non-beneficiaries pay. • Anti-competitive.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1-2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3-4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning
Level 3	5-6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** Functions of the price mechanism to allocate resources: • rationing • incentive • signalling Market diagrams for tobacco and e-cigarettes, making use of supply and demand analysis. * Consumers with knowledge of the potential harm of cigarette smoking may quit smoking. * Smokers will maximise their private utility * Consumers will decide what is in their best interests * Reduction in smoking will happen automatically, without government intervention, as e-cigarettes become popular. Candidates may refer to Adam Smith Consumers free to pursue own self interest Profit incentive will mean firms will want their consumers to live long – so move out of tobacco and into e-cigarette market. Without government regulations e-cigarettes market will be easier for new firms to enter thus improving competition. Competition between e-cigarette manufacturers to maximise profits will drive health improvements and lower costs making them more price competitive. Candidates may refer to Friedrich Hayek Resource allocation from tobacco to e-cigarettes will be brought about by market forces, which will be far superior to any state planning system. Individuals do not have perfect information on cigarettes but have the best knowledge of their own situation. The price mechanism acts as a communication network, markets are self-correcting. Government lacks sufficient information about everything happening in the cigarettes market to be able to make informed decisions.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6 (f) continued	**Evaluation 6** Failings of the price mechanism • Information gaps • Asymmetric information • Externalities • Peer pressure ignores utility • Habit forming distorts utility Possible different disadvantages or approaches : * While consumers may maximise their private utility MSC > MSB, with explanation. e.g. passive smoking/health care costs * Without government intervention the oligopolistic/monopolistic power of cigarette firms, in the form of advertising and propaganda, will go unchecked Candidates may refer to Karl Marx Consumers exploited in past by misinformation on tobacco and due to being addictive they become dependent. Competition and the need to profit maximise will mean firms cut costs risking consumers health and increase prices thus reducing consumer surplus. Nature of free market is for powerful monopolies to emerge that can further exploit consumers.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** Reasons for government intervention e.g. to correct market failure Link intervention to reducing carbon emissions. Appropriate diagram(s) accurately drawn. Ways might include: • Indirect taxation (ad valorem and/or specific) on carbon emissions providers e.g. coal/gas power stations, or workplace parking, reference to taxes directed at getting people out of their cars • Subsidies to solar/wind/nuclear energy/cycling/public transport • Maximum price on low/zero carbon emissions providers and minimum prices on carbon emitters. • Tradable pollution permits e.g. EU emissions trading scheme. • Provision of information, energy efficiency measures. • Regulation e.g. shut down all coal-fired power stations by 2025, reduction in car emissions by using low emission zones. **NB KAA can be treated as Evaluation and vice versa** **NB If there is no Diagram, max Level 3**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Why the ways given may or may not be successful e.g. • Distortion of price signals. • Unintended consequences, energy shortages. • Excessive administrative costs, pollution permits. • Information gaps, external costs of non-carbon based energy sources, questioning link between carbon emissions and climate change. • Government failure to provide, solar and wind power 'vary with weather', nuclear accidents. • Relative benefits/costs of government intervention versus market based solutions.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** Define excess demand. Application of excess demand to state funded health care. Government interventions: Factors influencing demand and supply (PES) that may result in the removal of excess demand (new hospitals built/doctors trained). Purpose of intervention with reference to market failure and using diagrams in various contexts: • government spending on direct provision increases supply • charging for NHS health care rations • indirect taxation (ad valorem or specific) on sugar/high fat content food/drinks or cutting taxes on healthier lifestyle options • subsidies on healthy food/gym memberships • maximum and minimum prices on healthy and unhealthy food/drinks Other methods of government intervention: • state provision of public goods e.g. public parks • provision of information e.g. 5 a day • regulation e.g. restricting sugar content • o subsidising private treatment	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6 (f) continued	**Evaluation 6** Government failure to reduce excess demand. Understanding of government failure as intervention that results in a net welfare loss; consumers face an under provision of food/drink that satisfies them i.e. marginal social benefits now exceed marginal social costs. Consumer choice restricted e.g. heavily subsidised healthy school meals and regulations against unhealthy options. Causes of government failure: • distortion of price signals • unintended consequences – charging for health care results in under consumption. • excessive administrative costs • information gaps – what is healthy, concerns about low sugar food/drink contents • time lag of the policies • magnitude depending on size of funding change. Irrational consumer behaviour - peer pressure.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6 (g)	**Knowledge 4, Application 4, Analysis 6** Distinction between free market, mixed and command economies: reference to Adam Smith, Friedrich Hayek and Karl Marx Disadvantages of free market approach: • Free market under provision of health services, with large external benefits (SMB>SMC analysis), below social optimum. • Sick unable to work – loss of potential output, PPF. • Addressing concerns on affordability to access health care, insurance and information gaps e.g. preventative earlier treatments for elderly and children. • Misallocation of resources on administration of charges. • Profit incentive misallocating resources ahead of patient needs. • Asymmetric information on need to pay for treatment and quality of care. • Missing markets for elderly, children, remote rural areas.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Functions of the price mechanism to allocate resources in private health sector or NHS: • rationing • incentive • signalling • 'Private health care increases choice for users, encourages competition and drives up standards of care.' • Mixed economy acts as a compromise between the advantages and disadvantages of a free market economy and a command economy. • Mixed economy features disadvantages of both a free market economy and a command economy and has no advantages of either. • NHS is more efficient and offers better care than private sector so why allow private sector to exist. • NHS waiting lists and lack of choice. • Information failures.	**(6)**

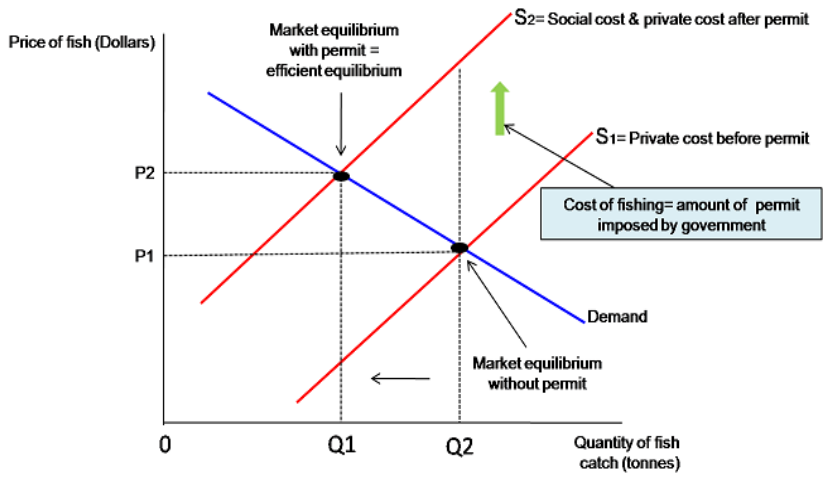
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Answer	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** The extracts contain plenty of examples from an international context. • Re-designing the structure of fees in England according to the 'value of the degree' • This could be done by subject, institution etc. • Cutting fees for poorer groups and introducing maintenance grants • The US model where top institutions charge high fees and state universities much lower ones • The European model of lower fees • A graduate tax as in Germany • Discussion of efficient/inefficient allocation of resources • Education as a merit good • External benefits application (with appropriate diagram) • Impact on income inequality/fairness/impact on poorer communities • Free market system will discourage 'fringe degrees' and focus on degrees that offer more vocational benefits that pay higher salaries (Good or bad?) Candidates may use supply and demand analysis to develop the idea of different subjects charging different fees.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	**1–3**	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	**4–6**	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	**7–10**	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	**11–14**	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Answer	Mark
6(f) continued	**Evaluation 6** England is similar to the U.S. and quite different from Europe • Good evaluation will consider the strengths and weaknesses of each method • European approaches recognise the increase in graduate earning potential and the much higher taxes that graduates will pay in the future. They are much cheaper at the point of use and encourage applicants from poorer families. The taxpayer pays the majority of the cost at the point of use • U.S. and English approaches recognise that the consumer of education must pay at the point of use and be prepared to make a personal investment in future earning power. Students are encouraged to consider whether their degree is worth the cost. If creative arts confer no benefits, then why study them?	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	**1–2**	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	**3–4**	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	**5–6**	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

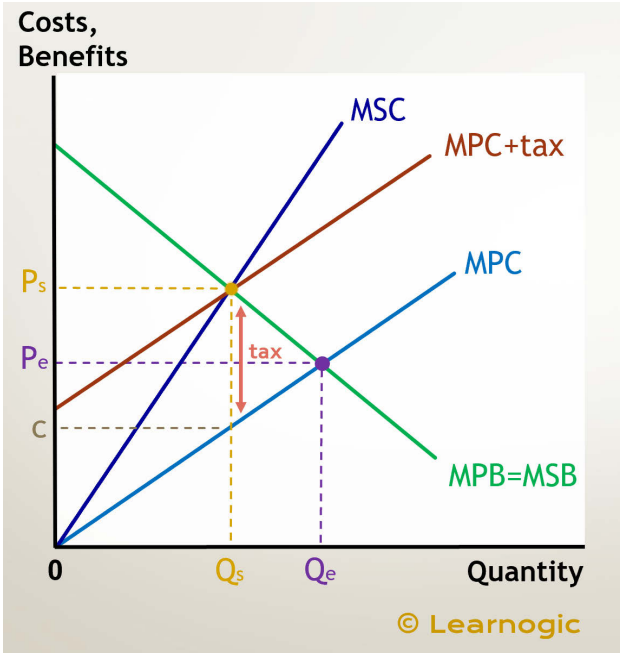
Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** **Do not award policies involving changes in the total allowable catch (TAC) per country** There are a range of policy options available to reduce over-fishing: Ways might include: • Provision of information, so that consumers can be encouraged to consume sustainably • Regulation e.g. designated areas for fishing allowing stocks to recover • Extension of property rights to international waters • Agreements on shares of fish that can be caught • Imposing indirect tax on fish to reduce consumption • Subsidy paid to firms to use safer technology • Minimum price for fish • Government permits awarded to fishing companies may be tradable • The answer may be supported using a relevant diagram e.g.  **NB If there is no appropriate diagram - maximum level 3 KAA**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Evaluation of policies might include; • Unintended consequences, such as illegal fishing • Excessive administrative costs • Information gaps, with consumers unaware of the extent of the damage being caused by over-fishing, not knowing level of tax to implement etc. • UK may increasingly over-fish since leaving the EU • Relative benefits/costs of government intervention versus market-based solutions • Government unaware of the right level of intervention	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** Define government intervention Government intervention is regulatory action taken by government that seek to change the decisions made by individuals, groups and organisations about social and economic matters. The extracts contain examples of the external costs of producing and consuming streamed content and the market failure associated. • The carbon footprint produced by fans watching a month of Netflix's top 10 global TV hits is equivalent to driving a car to Saturn • Every activity in the chain required to stream video, from the use of huge data centres and transmission over Wi-Fi and broadband to watching the content on a device, requires electricity. The majority of this is generated by emitting greenhouse gases Policies should target specific issues • Use of a tax on usage to increase costs for subscribers and to reduce the over consumption/ production • The imposition of a carbon tax is intended to internalise these externalities. The final price of the good should include the external costs and not just the private cost. Those who cause environmental costs should be made to pay the full social cost of their actions	**(14)**

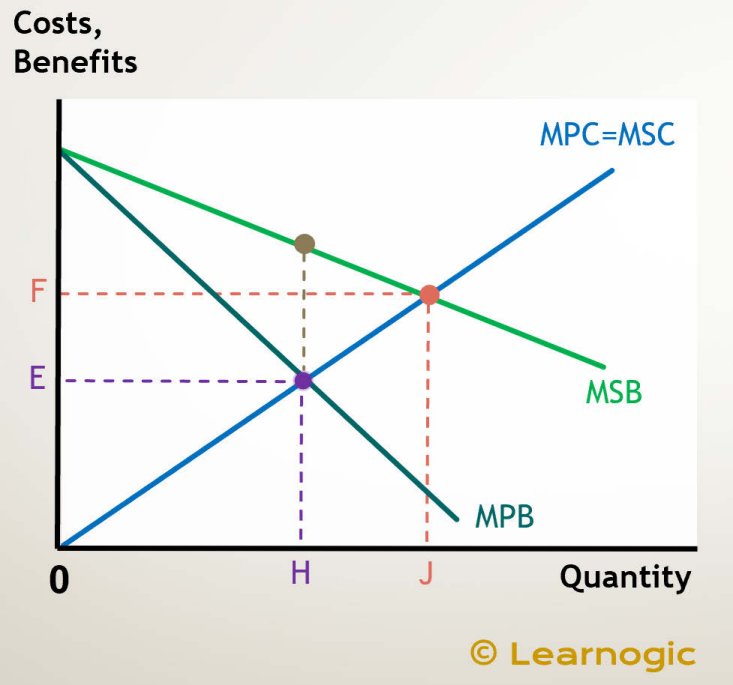


- With the tax, consumers now face the full social cost (MSC). Quantity falls from Qe to Qs. Qs is socially efficient because marginal social cost = marginal social benefit
- Alternatives such as provision of information may be used to inform subscribers of the issues being caused and reduce the asymmetric information problem
- The focus of any government intervention could encourage alternative forms of entertainment and recreation
- Improve information on the environmental effects or to use regulation to limit viewing hours for individuals

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(f) continued	**Evaluation 6** Effectiveness of policies used 'in a free market dominated by US firms' Intervention – tax • Production may shift to countries with no or lower carbon taxes. (so-called 'pollution havens') This can give developing countries an incentive to encourage production processes which cause pollution, i.e. there is 'outsourcing' of pollution • The cost of administrating the tax may be quite expensive reducing its efficiency • It is difficult to evaluate the level of external cost and how much the tax should be • Possibility of tax evasion. Higher taxes may encourage firms to hide carbon emissions • If demand is price inelastic, the tax may have to be very high to reduce demand significantly. In the short term, firms may not feel they have many alternatives. Though, over time, demand will become more elastic as more alternatives are generated • Impact on income inequality/fairness/impact on poorer communities Other methods can be discussed including; Regulation of number of hours of content watched by individuals Subsidies of more energy efficient devices from which to consume content	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to
		context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

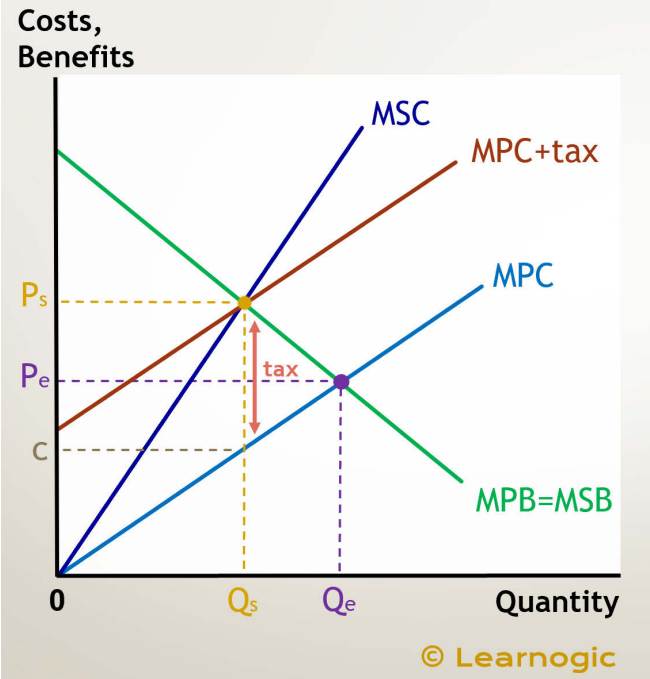
Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** The free-market approach to providing television content is based on subscription to paid services such as Netflix and advertising-funded commercial television stations Broadcasting has historically been provided publicly, financed through a mixture of television licence fees, appropriations from general taxation, and advertising Negatives with the free market approach; • Market provision leading to excessive advertising levels. Excessive advertising is an issue with commercial television • Under provision of resources to programming and whether these resources be used to produce appropriate programming • Left to the market alone there will be under-consumption of public service broadcasting. This can be illustrated through an externalities diagram:  ▯ The diagram below shows the marginal private benefit (MPB) and marginal social benefit (MSB) curves and the marginal private cost (MPC) and marginal social cost (MSC) curves for public service broadcasting	**(14)**

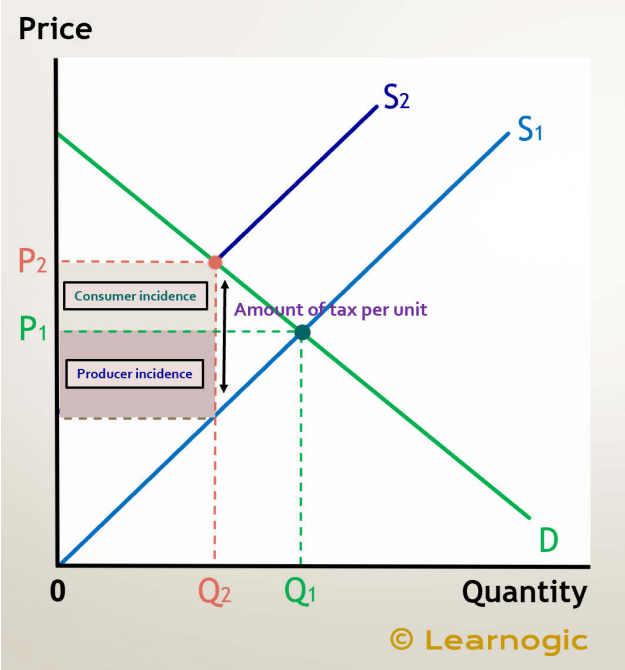
	▯ The external benefits of public service broadcasting are social benefits that spillover to benefit others in the society and future generations. These are seen in the public purposes of the BBC's Charter ▯ Government intervention can be used to ensure that the optimum quantity of provision, J, is consumed rather than the free market outcome at H	

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Answer	Mark
6(g) continued	**Evaluation 6** Arguments in favour of the free market approach include: • Charging for usage allows content providers to improve the quality of their services. The 'streaming wars' are generating innovation and improved customer satisfaction • The greater the number of subscribers the more easily content providers can spread the costs of programming, leading to reduced prices • Greater efficiency when compared to public service provision Problems of public service broadcasting include: • There is a significant issue surrounding the funding of public service broadcasting. The five public purposes of the BBC's Charter are expensive to fulfil. • Content is expensive to create. The licence fee is seen as problematic because it is a regressive form of taxation, with everyone paying the same fee regardless of their income • As technology develops, it become even harder to sustain a compulsory licence fee when people have moved predominantly to alternative sources of information through the internet, digital channels and smart phones	**(6)**

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** Impacts of tax introduced for plastic food packaging including the following; • Increased price of food • Reduced consumer surplus • Incentives for producers to use recycled packaging • Further tax revenue to the government which could be hypothecated to mitigate externalities e.g litter/ fund additional interventions • Increased price acting as nudge/ shove in order to change behaviour of consumers • Reduced impact upon the environment/litter as disincentive for firms to use excessive packaging • Possible use of diagram highlighting social optimum of reduced consumption/ production of plastic - or use of supply and demand diagram/incidence of tax concept to highlight where the burden will fall in terms of the increased costs to package food Diagrams may include; -Reduced externality through taxation  	**(14)**

	-Tax applied – increasing price/reducing quantity  **NB If there is no valid diagram, max Level 3**	

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models.

		Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(f) continued	**Evaluation 6** • Depends on the Price Elasticity of Demand for particular foods – whether price increase is passed on • Discussion of possible subsidy or alternative being more effective in incentivising use of different materials in order to reduce use of plastics in packaging • Depends on magnitude of the tax and its duration, if it will continue to be set at this rate • Is the level of tax sufficient to change behaviour of firms and indirectly, consumers through increased prices • As discussed within the extract, 30% recycled plastic avoids the tax and therefore a somewhat limited impact of the tax • If the tax is set too high, could lead to a misallocation of resources (government failure) – with non-compliance causing increased enforcement costs (further government failure)	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.

Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

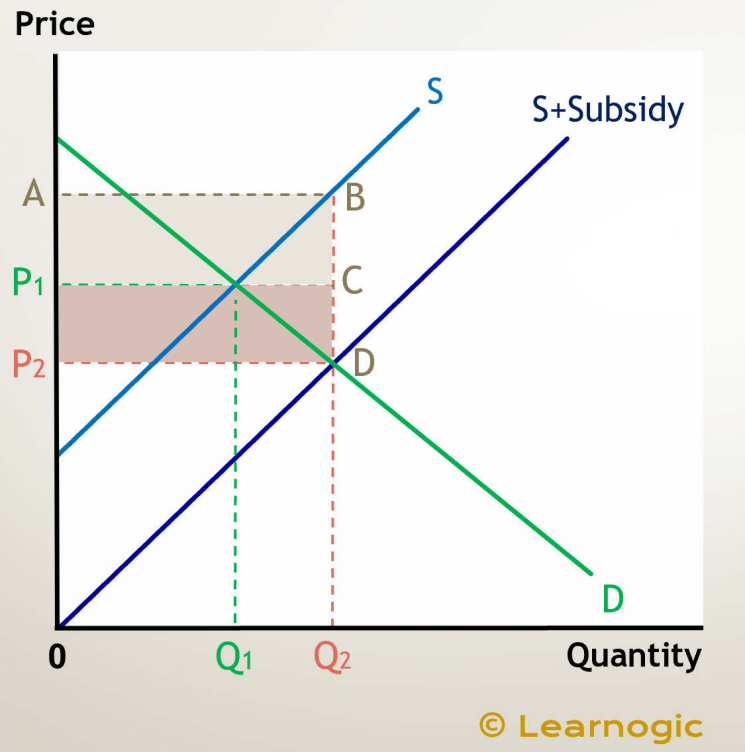
Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** Policy options may include; • Subsidies for alternatives and highlighting decreases in prices for such goods – leading to incentives for firms to undertake research into alternatives and reduce the market failure associate with excess production/ consumption • Information provision – solving asymmetric information failure by informing consumers and producers of the market failure caused by plastic waste • Further taxation on the consumption or production of plastic & hypothecation of this tax revenue to fund alternative(s) • Bans on plastic packaging – highlight impact of prohibition, leading to removal of specific plastics used in different areas • Minimum price for plastic to be used by firms – which would act as a disincentive for firms to incorporate within their production • Regulation of use and need for additional recycling – the development of increased recycling of plastic waste would limit the externalities associated and ensure lower levels of market failure **NB If there is no valid diagram, max Level 3**	**(14)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems

		in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Why the interventions given may or may not be successful in reducing market failure e.g. • Incidence of the tax/ Price elasticity of demand of the product associated with the plastic waste • Distortion of price signals – i.e. through minimum price implementation • Unintended consequences, other implications • Excessive administrative costs • Information gaps – not estimating the market failure/ external costs effectively enough • Government failure to provide sufficient subsidies – or to set too high/ low and may not lead to an optimal allocation of resources • Relative benefits/costs of government intervention versus market based solutions or other comparisons or interventions. • Opportunity cost of spending on solutions	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** Various microeconomic impacts of a reduction in the subsidy provided for supporting farming/ agriculture Use of subsidy diagram to highlight the impact upon price and quantity supplied  Diagram(s) accurately drawn – with clearly labelled change in equilibrium and market price - Missing markets – farmers/ businesses/ producers of animal products may leave markets if profits/ revenue fall due to higher prices - Increased price due to contraction in supply **NB KAA can be treated as Evaluation and vice versa** **NB If there is no Diagram, max Level 3**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
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Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(f) continued	**Evaluation 6** • Depends upon the incidence of the subsidy • Other factors affecting cost(s) of production could be of greater or less importance • Depends on the proportion of income a subsidy makes up – this is different for the various different types of farming	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** - The effect of a tax will shift the supply curve to the left and raise the price of the product. - The tax should reduce the consumption of animal products towards the social optimum. - Impact upon consumer surplus due to impact upon the market - Price paid for animal products will rise and quantity reduced - Extract A – tax introduced to reflect the cost of	

	externalities - $35 billion tax revenues into the EU - $15 billion being directed to farmers **NB KAA can be treated as Evaluation and vice versa** **NB If there is no Diagram, max Level 3**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
7	**Knowledge 4, Application 4, Analysis 8** • Definition of a tax/ identification of an ad valorem tax. Economic effects include: • Increase in price and a reduction in demand for soft drinks which contain sugar / increase in demand for healthy drinks. • Reduction of consumer surplus and producer surplus/ profits (may be shown on diagram) • Tax acts to increase costs and may reduce profits. • Increased investment in healthier drinks. • Increase in tax revenue for government and impact on healthcare services and other services, for example dental care. • Improvements in quality of healthcare among population – fall in obesity, diabetes and heart disease. Reduced pressure on healthcare services. • A diagram of an indirect tax may be awarded, depicting an increase in price, a decrease in quantity and the area of tax collected. • A relevant externality diagram depicting a reduction in welfare loss. • A relevant cost and revenue diagram depicting the impact of an expenditure tax on firms. • Increase in life expectancy/ the quality of life/ productivity in the workforce. • Impact on employment in the soft drinks industry/impact on employment in substitute product markets. • Impact on income distribution / regressive tax **Evaluation 9** • Significance of price elasticity of demand in determining impact on price, quantity, employment and tax revenue. • Consideration of the impact on substitutes/ application of cross elasticity of demand e.g. switch to healthier substitutes. • Consideration of the incidence of tax on consumers and producers. • Difficulty in imposing the tax – different soft drinks products with different sugar content. • Extent of hidden/informal market. • Time factor - long term implications for government funding of pensions and healthcare. • Consideration of price elasticity of supply e.g. the ability of producers to switch to healthier drinks.	**(25)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
1(d)	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** 16 marks for KAA, for effects of increased spending on education to promote heathy eating in the UK. Microeconomic effects may include: • Effects of increased demand for healthy foods/consumer surplus/increased prices (may include supply and demand diagram) or fall in price of HFSS foods • Positive externalities in consumption are internalised (may include divergent MSB and MPB diagram and corresponding movement toward social optimum at MSB=MSC) • Impact on firms which make unhealthy products – increased costs if they diversify/reduced demand e.g. use of healthier ingredients with higher costs. This might be shown on a cost/revenue diagram. • Increased profits for healthy food producers e.g. shown on a costs/revenue diagram • labour market issues, e.g. workforce becomes healthier, and reduced obesity might make workers more productive (increase marginal product) • Opportunity cost of spending on education Macroeconomic effects may include: • Effects on price level and output as G increases, with multiplier effects. May be shown by shift out in AD with effects on price level and real output. • Healthier workforce shifts out the LRAS, with impact of lower prices and higher output • Fiscal implications – crowding out, effect on balancing budget **NB for a Level 4 response there must be micro and macro effect (s). Opportunity cost/shift in PPF/labour markets/competitiveness etc. can be used as micro or macro.** 9 marks for evaluation – questioning might include: • Expansionary fiscal policies not necessarily happening. It might mean expenditure elsewhere is cut (opportunity cost arguments) • Trade-off between objectives e.g. increased spending might cause inflation, depends on the state of the fiscal balance, multiplier etc. • Questioning whether education is effective, or whether other policies are needed, e.g. tax, banning advertisements • Education might be counter-productive/role of state might be questioned e.g. government failure, crowding out effect	**(25)**

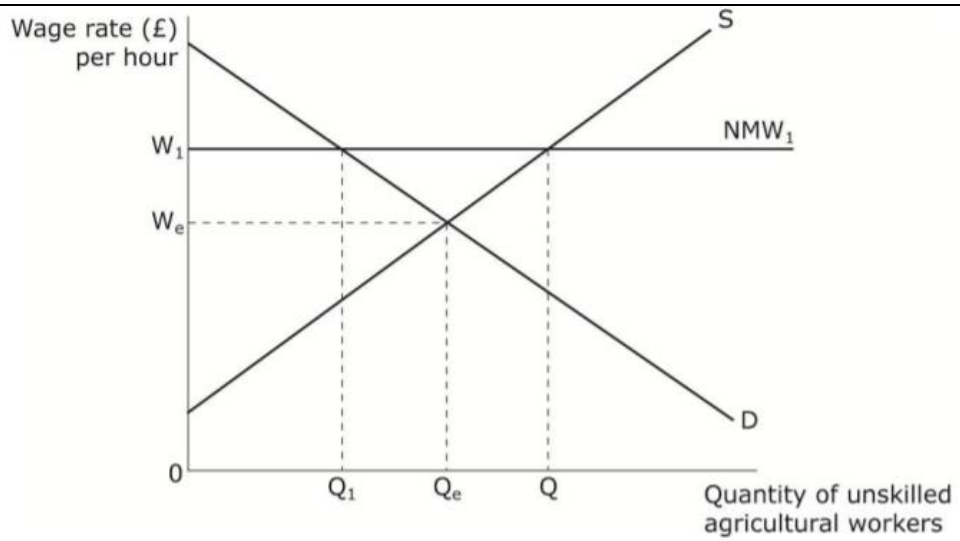
Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems covering both microeconomic and macroeconomic factors. The answer demonstrates logical and coherent chains of reasoning.
Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

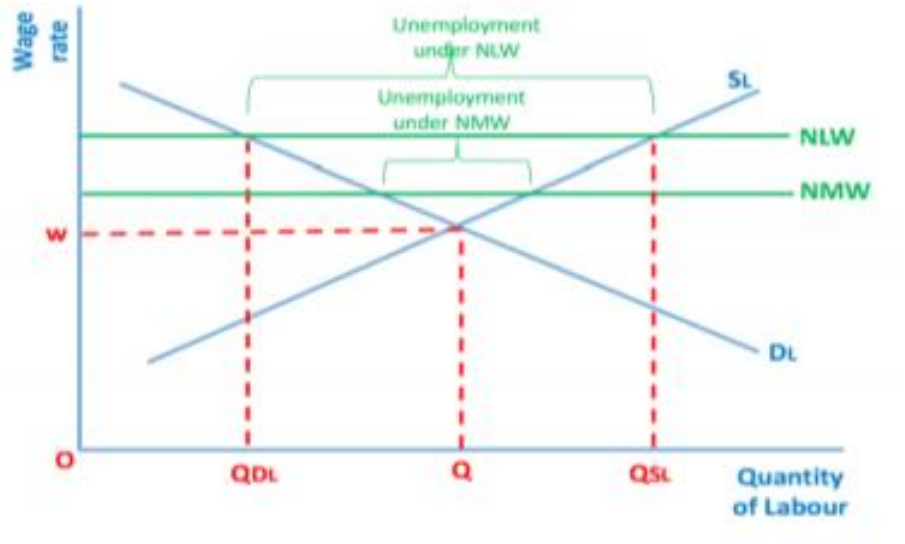
Question Number	Indicative content	Mark
1(e)	**Knowledge 4, Application 4, Analysis 8 Evaluation 9** 16 marks for KAA, for effects of increase in tax on HFSS foods. Microeconomic effects may include: • Rational economics implies people will change consumption patterns. Consumer preferences will change away from HFSS foods e.g. as consumers switched to cheaper brands and crossed the border to Sweden and Germany to do their shopping (Extract C). • An ad valorem or specific tax diagram might be used to illustrate the effects on prices/quantity in each market, and the incidence of tax • Cross elasticity of demand – evidence (e.g. Extract C) that a rise in price may cause a rise in demand for healthy food. • Welfare changes, e.g. loss of consumer, producer surplus/higher prices and deadweight welfare loss. This might be shown with an externalities diagram, e.g. positive in consumption of healthier foods. • Impact on firms, e.g. loss in profits on HFSS as costs rise/demand falls. This might be illustrated using a costs/revenue diagram; increased profits for healthier options. • Impact on labour market. Healthier workers, or effects of cut in real wages as costs of living increase. Changing employment opportunities. e.g. reduced employment for HFSS manufacturers and increased employment for healthy foods firms. Macroeconomic effects may include: • Redistribution (micro or macro issue): indirect taxes of this sort are regressive, disproportionately affecting the elderly and the poor. Taxes on HFSS foods moderate consumers, as well as the obese overeaters they are intended to target. • Cost push inflation – a one-off rise in prices. This might be shown by an upwards/leftwards movement of AS • Effects on incomes/net exports – may be linked to a fall in AD, e.g. in Denmark the policy helped push up food prices in a year in which real wages fell by 0.8%. • Governments might gain revenue which can be used elsewhere in the economy / lose revenue – Laffer curve (Extract C) **NB for a Level 4 response there must be micro and macro effect (s). Opportunity cost/shift in PPF/labour markets/productivity/competitiveness etc. can be**	

	used as micro or macro. Up to 9 marks for evaluation. Points might include: • Depends if firms respond by cutting prices (Extract B) • The tax makes people buy other unhealthier food (in Extract C) e.g. increases price and people may substitute to cheaper even unhealthier or low-quality alternatives that are more affordable • Tax is not an efficient deterrent to obesity. The policy had a very limited impact on the consumption of HFSS in the data foods: 80% of Danes did not change their shopping habits at all (Ext C). Not only is demand for food relatively inelastic, prices often fluctuate, and consumers become immune to changes • Depends on magnitude- the proportion of income may be low • The price elasticity of demand will determine the incidence of the tax - inelastic larger consumer incidence and elastic larger producer incidence. • Depends on how funds are used - e.g. to promote healthy eating through subsidies and education • The intervention may mean free markets work less well – theory of unintended consequences • Other unintended consequences e.g. counterfeit, smuggling	**(25)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
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Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
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Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
7	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** • Minimum wage – legally enforced wage floor • Wage set above market equilibrium wage • Increasing from £8.72 to £10.50 • Extension in supply of labour • Contraction in demand for labour • Excess supply of labour Drawback of increase • Unemployment in specific labour market • Firms close in specific market - rise in variable/fixed cost depending on market • Additional drawbacks of minimum wage Wage elasticity of demand • Proportion of labour costs relative to total costs • Ease and cost of factor substitution • PED for final product, derived demand Wage elasticity of supply • Relative skills required in specific market • Income effect • Substitute effect • Allow suitable minimum wage diagram e.g.	**(25)**





NB a diagram is not required
NB for Level 4 the candidate must refer to a specific labour market.

Evaluation

- Benefits of increase
- Increased labour mobility into specific market
- Increased productivity
- Counters monopsony employer abuse
- Firms decide to now train labour as paying higher wage
- Improved customer service/social objectives achieved
- Improved living standards/reduced relative poverty e.g. north of England
- Additional benefits of minimum wage

	• Minimum wage set below equilibrium – in parts of country • Does not apply to some workers in specific market • Relative price elasticity of demand for labour • Relative price elasticity of supply • Short-run/Long-run considerations – substitute capital, qualifications and training • Labour in specific market is not homogenous • Backward bending supply of labour • Cost of labour relative to other factor inputs • Ability of firm to relocate/move into another market • Problems measuring productivity	

Knowledge, application and analysis		
Level	Mark	Descriptor
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Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
1 (e)	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** 16 marks for KAA, for effects of increased government intervention. Microeconomic effects may include: • Minimum price, living wage enforced, planning issues, tax, health and safety • Rise in wages (if wage floors introduced) will have a large impact on costs. Might be shown on increasing NMW diagram • Effect on price of car washes – consumer surplus falls, output falls, price increases • Impact on quantity of labour/marginal revenue productivity • Impact on productivity • Diagram to show the effect of the intervention approach, e.g. of minimum price as solution to market failure • Price of a car wash might be passed on to higher wages Macroeconomic effects may include: • Income equality improvements – may use Gini coefficient or Lorenz curve • Prices rise – inflationary effects • reduction in levels of poverty • effects on growth – inflexibility in markets can reduce I or FDI • might improve environmental standards • Reduced employment **NB for a Level 4 response there must be micro and macro effect (s). Employment or welfare issues could be seen as micro or macro, for example, can be used as either micro or macroeconomics** **NB for a Level 4 response there must be reference to an industry**	

	9 marks for evaluation – points might include: • Government failure, e.g. regulatory capture, asymmetric information • depends on impact of other events such as UK leaving the EU, high unemployment from recent Global Health Crisis • effect on workforce of employment regulation depends on elasticity for demand for labour, and degree with which it can be replaced with capital • depends on PED of HCW market as a whole • consumers might also have increases in wages • some firms will face decreased demand and go out of business. Loss of jobs and other economic activity • depends on the PED and PES in factor market and product market as a whole • Wash Mark Certificates not government regulation may have more of an impact in improving quality and conditions for workers and reducing pollution than government action	**(25)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays ability to apply knowledge in context but will focus on small range of elements. Demonstrates understanding by identifying relevant information. Demonstrates knowledge and understanding of terms, concepts, theories and models.
Level 2	5–8	Shows ability to apply economic ideas and relate them to economic problems in context. Displays knowledge and understanding of economic principles, concepts and theories to make limited analysis or narrow analysis.
Level 3	9–12	Analysis is clear and coherent with evidence well integrated, although may focus on some of the broad elements of the question more than others. Shows ability to apply economic ideas and relate them directly to the broad elements in the question.
Level 4	13–16	Analysis is relevant, clear and coherent with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems covering both microeconomic and macroeconomic effects. A clear understanding of economic principles, concepts, theories and arguments.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of evaluative comments without explanation.
Level 2	4–6	Evaluative comments with limited explanations. Evidence of evaluation of alternative approaches which is generic or unbalanced leading to limited judgements.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to the context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
1(e)	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** 16 marks for KAA, for effects of increased minimum wage Microeconomic effects may include: • rise in wages will benefit very low paid workers. Might be shown on increasing NMW diagram • effect on cost to firms e.g. reduced profit margins. Might be shown on a cost and revenue diagram. • excess supply of hospitality workers • effect on prices consumer surplus falls, output falls, price increases • impact on quantity of labour demanded/contraction of labour demand • impact on productivity • inefficient resource allocation due to distortion of price mechanism Macroeconomic effects may include: • income equality improvements – may use Gini/Lorenz • prices rise – inflationary effects • reduction in relative poverty • AD: increase in consumption as incomes increase/fall in investment as profits fall • SRAS: cost-push • LRAS: if investment falls, then LRAS shifts in • reduced employment • higher income tax revenue • lower unemployment related benefits **NB for a Level 4 response there must be micro and macro effect (s) and use of data with reference to restaurants or other food delivery services. Employment or welfare issues could be seen as micro or macro, for example, can be used as either micro or macroeconomics.** **NB Effects in KAA could be used as evaluation and vice-versa.**	**(25)**

	9 marks for evaluation – points might include: • effect on firms depends on how much wage costs are as a proportion of overall costs • impact on real output depends on level of spare capacity/elasticity of LRAS/magnitude of multiplier • effect on workforce of employment regulation depends on elasticity for demand for labour, and degree with which it can be replaced with capital • depends on PED of food delivery firm market as a whole • consumers might also have increases in wages so profits might not fall • some firms will face decreased demand and go out of business. Loss of jobs and other economic activity • depends on the PED and PES in factor market and product market as a whole • LRAS might rise as economically inactive workers enter labour force to look for jobs • higher tax revenue may not occur if unemployment increases or investment decreases • higher unemployment related benefits if unemployment increase • productivity/motivation arguments	

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays ability to apply knowledge in context but will focus on small range of elements. Demonstrates understanding by identifying relevant information. Demonstrates knowledge and understanding of terms, concepts, theories and models.

Level 2	5–8	Shows ability to apply economic ideas and relate them to economic problems in context. Displays knowledge and understanding of economic principles, concepts and theories to make limited analysis or narrow analysis.
Level 3	9–12	Analysis is clear and coherent with evidence well integrated, although may focus on some of the broad elements of the question more than others. Shows ability to apply economic ideas and relate them directly to the broad elements in the question.
Level 4	13–16	Analysis is relevant, clear and coherent with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems covering both microeconomic and macroeconomic effects. A clear understanding of economic principles, concepts, theories and arguments.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of evaluative comments without explanation.
Level 2	4–6	Evaluative comments with limited explanations. Evidence of evaluation of alternative approaches which is generic or unbalanced leading to limited judgements.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to the context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

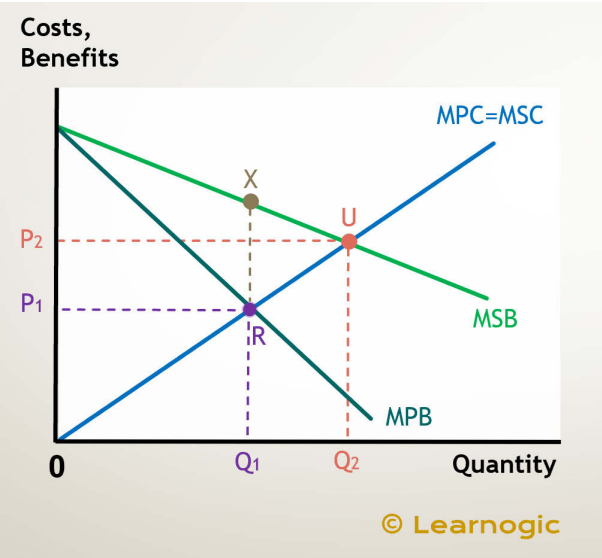
Question Number	Indicative content	Mark
7	**Knowledge 4, Application 4, Analysis 8** Explanation of methods of government intervention may include: ● price regulation e.g. energy price cap ● direct support from government to households ● grants/subsidies ● enhancing competition through promotion of small business/ breaking up large energy suppliers ● state ownership arguments ● threat of windfall tax which forces companies to pass on falls in wholesale costs to households ● separate retail and wholesale divisions ● education/information campaigns to help households reduce energy usage ● CMA investigation into price fixing/collusive behaviour ● Legislation to decouple gas and electric prices ● Encouragement of smart meters to reduce information gap **NB - for Level 4 KAA candidates must refer to the energy market** **NB – Must be at least TWO METHODS FOR KL4 as "methods"** **Evaluation 9** ● Asymmetric information ● Regulatory capture ● Time lags ● Prioritisation arguments ● Short run v long run arguments ● Combination of policies required ● Government failure ● Unintended consequence e.g. energy retailers leave market ● Cost and opportunity cost arguments ● Scale of support needed could change ● Other sources of gas supply ● Depends on type of tariff e.g. pre-payment meters are more expensive ● Depends on type of household	**(25)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
8	**Knowledge 4, Application 4, Analysis 8** Methods of government intervention may include: • indirect taxation - e.g. tax on petrol & diesel or new car sales • subsidies on public transport • subsidies on the development on electric vehicles • minimum prices e.g. on new petrol/diesel cars • maximum prices e.g. on public transport or electric vehicles • Emissions Trading Scheme on aviation but proposed extension to road transport • regulation e.g. ban on sale of petrol & diesel vehicles, vehicle emission checks, ban cars in certain areas, new builds to have charging points • road pricing schemes - congestion charges, low emission zones • improved public transport infrastructure • education & information schemes • further deregulation of public transport/creation of greater competition in markets • regulation by CMA of train operators to improve reliability of services/reduce prices • increase road tax/road tax incentives for low carbon emission vehicles • promotion of alternative forms of transport e.g. electric bikes, cycle lanes, car sharing, bus only lanes • incentives for working from home e.g. tax breaks • behavioural arguments **NB: For Level 4 KAA candidates must refer to the transport market (cars, roads, public transport etc.)** **NB – AT LEAST TWO METHODS FOR KL4 as "methods"** **Evaluation 9** • Criticisms of the likely effectiveness of policies • Government failure • Inelastic PED arguments • Weak substitute/XED arguments • Asymmetric information • Regulatory capture • Time lags • Prioritisation arguments • Short run v long run arguments • Combination of policies required • Cost and opportunity cost arguments • Measurement issues • Administration & enforcement issues • Arguments surrounding the manufacturing of electric vehicles/battery charging/poor infrastructure • Behavioural arguments	**(25)**

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.
Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.

Question Number	Indicative content	Mark
8	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** **Microeconomic effects could include:** • Impact on firms' costs, revenue, profit (use of cost, revenue, profit diagram) • Impact on schools, colleges and universities particularly significant • Accept discussion of different funding models, with the Department for Education taking over role of the Education and Skills Funding Agency (ESFA) in March 2025. This previously funded education for learners aged 16 to 19-years-old • Impact on labour markets e.g. occupational mobility of labour, labour market shortages, supply of labour in specific industries, demand for labour e.g. maths teachers, wage determination • Increased skills so better employment prospects and higher wages/standard of living • Positive consumption externalities – private and external benefits • Use of diagram e.g. RXU is potential welfare gain, RX size of external benefit, etc.  • PPF and growth arguments **Evaluation** • Magnitude of spending - depends on how much	**(25)**

	spending on education is increased • Affordability arguments • Opportunity cost arguments • Some people are less suited to Maths and may struggle to make progress • People may be suited to focusing on other areas • Government failure arguments • Time lags and implementation lags – education takes a long time to have an impact, policies take time to be designed and implemented • Type of education included in the policy e.g. what level of maths • Conflicts between objectives – cost versus benefits • Difficulty in valuing external benefits • Impact on long-term size of labour force **NB Macroeconomic effects should be awarded at L2 maximum** **NB negative effects can be taken as KAA and positive effects as evaluation (and vice versa)**	

Question Number	Answer	Mark
6(a)	**Knowledge 1, Application 2, Analysis 2** **Knowledge** Distortion of consumer or producer behaviour due to the impact of an economic decision (1) **Application** 2 marks for using source data from extract such as; • 30% tax/ £200 per tonne tax on plastics (1) • 'Was 'designed to provide incentives to business to recycle' (1) • 'Inflationary pressures within the supply chain' (1) • Food manufacturers are particularly impacted as 'use 40% of packaging within the UK' (1) **Analysis** Reference to relevant unintended consequences; • More products brought pre-wrapped in plastic to avoid need for the plastic bag (1) • Use of thinner plastic which increases food waste (1) • Purchasing of products online increases co2 impact (1) • Due to the incidence of the tax, falling on consumers (1) it may have a regressive impact (1) upon the lowest incomes. • Prices increasing for consumers (1) passed on predominantly if demand were inelastic / or leaving people worse off (1)	**(5)**

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6** • Effects include changing property prices, rental market, affordability, shifts in demand and supply, welfare changes, environmental impact, cost to firms, cost to government, or impact on other markets. • Methods of intervention – e.g. subsidies, taxation, provision of information, regulation, direct provision of housing, flood defences, Help to Buy and rent controls. One type of intervention is sufficient as long as considering range of micro-effects. • Purpose of Government intervention to correct market failure – housing shortages and affordability. Possibility of further market and government failure. • Use of Figure 1 to indicate UK's PES may increase. • Use of Extract B: to increase property supply "making new homes available more quickly". • Candidates may consider macro issues in a micro context if part of a chain of reasoning that identifies micro impact e.g. provides incentive to build more housing increases employment. NB KAA can be positive or negative effects.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1-3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4-6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two-stage chain of reasoning only.
Level 3	7-10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance
Level 4	11-14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(f) continued	**Evaluation 6** • Magnitude – extent of government intervention. • Measurement difficulty • Short run, long run issues. • Information gaps. • Unintended consequences - mortgage help may become ineffective in catching a 'runaway train' • Impact on different interest groups. • Distortion of price signals. • Opportunity cost to Government. • Environmental impact e.g. flooding NB EV can be positive or negative effects.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1-2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3-4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning
Level 3	5-6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement

Question Number	Indicative content	Mark
6 (g)	**Knowledge 4, Application 4, Analysis 6** Positive/negative effects of government intervention on tobacco cigarettes and or e-cigarettes with reference to market failure and using diagrams in various contexts: • Indirect taxation (ad valorem and specific) • Subsidies for tobacco replacements • Minimum cigarette price • Provision of information e.g. public health campaign • Regulation e.g. banning smoking in public places or advertising. • Direct provision – nicotine patches and e-cigarettes on NHS prescription Diagrams may be used to illustrate the above.	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Negative or unsuccessful impact of the intervention methods. Understanding of government failure as intervention that results in a net welfare loss – tobacco cigarette tax revenue exceeding tobacco related NHS expenditure. Causes of government failure: • Distortion of price signals – harm reduction instead of prevention, consuming e-cigarettes rather than quitting • Unintended consequences – e-cigarettes draw in new users acting as a gateway to smoking; regulating e-cigarettes protect tobacco from competition; tobacco smuggling • Excessive administrative costs – slow down e-cigarette innovation • Information gaps – little research on long term effects of e-cigarettes • Ineffective as PED <1; diminishing returns of tax and regulations. Price inelastic demand diagram. Other evaluation approaches include: • Consideration of the extent of government intervention e.g. could it be more regulated • Free market approach might be more effective • Depends on the country being considered • Short run and long run	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Appendix 1

Question 6e directed candidates to "Assess" for 15 marks. In order to be in line with the support materials for this specification, this question should instead have directed candidates to "Discuss" for 15 marks. In order to ensure that all candidates received the fairest possible outcome, examiners were briefed on a levels-based marking structure for both command words. The body of the mark scheme includes the levels structure for the "Assess" command word as written in the paper. The levels structure that examiners considered for the "Disucss" command word is included below.

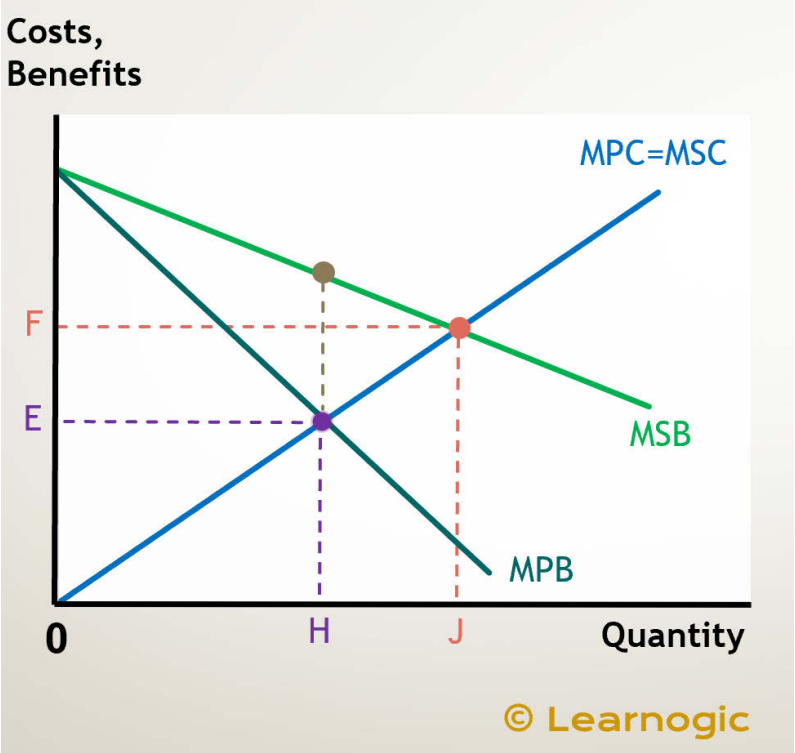
Question Number	Indicative content	Mark
6(e)	**Knowledge 3, Application 3, Analysis 3** • Identification of determinants of price elasticity of demand • Application – PED tobacco cigarettes -0.35; PED e-cigarettes -1.9. Reasons why tobacco cigarettes being relatively price-inelastic, e-cigarettes relatively price-elastic e.g.: • habitual consumption • tobacco broadly defined • proportion of income spent on tobacco cigarettes lower than switching cost of buying reusable e-cigarette kit • number of close substitutes • tobacco addictive necessity, e-cigarettes luxury (not yet addicted to). NB to access Level 3 candidates need to consider tobacco and e cigarettes.	**(9)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but

		the answer may lack balance.
Level 3	7–9	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(e) continued	**Evaluation 6** • significance of determinant • e-cigarettes habit forming • tobacco cigarettes narrowly defined • proportion of income spent on tobacco cigarettes is rising • becoming closer substitutes • tobacco addiction waning as lost glamour and health warnings, e-cigarettes nicotine addiction. • longer term response to rising tobacco prices	**(6)**

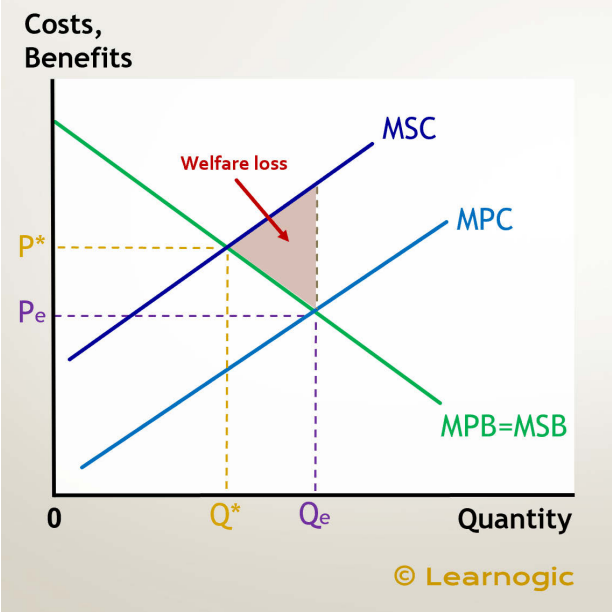
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant chain of reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question.

Question Number	Answer	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** Education creates positive externalities in consumption. Left to the market alone there will be under-consumption of education. This can be illustrated through an externalities diagram:  • The diagram above shows the marginal private benefit (MPB) and marginal social benefit (MSB) curves and the marginal private cost (MPC) and marginal social cost (MSC) curves for higher education • The external benefits of education are social benefits that spillover to benefit others in the society and future generations. These include lower government health, welfare, and prison costs; strengthened democracy, human rights, political stability, and social capital; less crime and poverty; environmental benefits; better international competitiveness; new ideas and diffusion of technology • Government intervention can be used to ensure that the optimum quantity of education, J, is consumed rather than the free market outcome at H	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	**1–3**	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	**4–6**	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	**7–10**	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	**11–14**	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Answer	Mark
6(g) continued	**Evaluation 6** • There is a significant issue of measurement where externalities are concerned • Many of the social benefits identified above are 'vague' and ambiguous • As a result there can be considerable 'government failure' in education • Understanding of government failure as intervention that results in a net welfare loss; how is government supposed to know which degree level subjects are in demand in the future? • Causes of government failure: ○ distortion of price signals ○ unintended consequences ○ excessive administrative costs ○ information gaps	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	**1–2**	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	**3–4**	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	**5–6**	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
7	**Knowledge 4, Application 4, Analysis 8, Evaluation 9** **Microeconomic effects could include:** • Impact on firms' costs, revenue, profit (use of cost, revenue, profit diagram) • Impact on construction sector significant • Impact on labour markets e.g. geographical mobility of labour, labour market shortages, supply of labour in specific industries, demand for labour during construction, wage determination • Positive external benefits of less car travel • Employment/Wages - quicker transport e.g. for workers to access high paying jobs in London • Negative production externalities – private costs and external costs (use of diagram)  • Accept price on y-axis, MSC may be parallel or pivoted • PPF and growth arguments • Impact on house prices **Evaluation** • Magnitude of the project - £100 billion is significant • Affordability arguments • Opportunity cost arguments • Government failure arguments	**(25)**

	• Time lags and implementation lags • Type of infrastructure project built • Conflicts between objectives – cost versus benefits • Difficulty in valuing external costs • People may not have the skills (e.g. financial) to get these jobs • Whilst quicker, transport costs could be prohibitive • Environmental offset may compensate for the loss from construction • Extensive use of tunnels minimises environmental damage **NB Macroeconomic effects should be awarded at L2 maximum** **NB negative effects can be taken as KAA and positive effects as evaluation (and vice versa)**	

Knowledge, application and analysis		
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–4	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	5–8	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	9–12	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	13–16	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Evaluation		
Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–3	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially-developed chain of reasoning.
Level 3	7–9	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation recognises different viewpoints and is critical of the evidence provided and/or the assumptions underlying the analysis enabling informed judgements to be made.