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OCR AS ECONOMICS: QUESTIONS BY TOPIC

The Role of Markets

OCR AS Economics H060 — Topic MICRO 2

122 questions · 434 marks · Mark schemes included

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HOW TO USE THIS BOOKLET

Questions run from the lowest mark tariff to the highest, so similar questions sit together.
Click any row below to jump straight to that question.
On every question page, click the header (top right) to jump to its mark scheme, and click again to jump back.
Mark schemes are collected together at the end of this booklet, cropped from the genuine OCR mark-scheme grid.

122 questions · 434 marks · lowest tariff first

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QUESTIONS

122 questions · 434 marks · lowest tariff first

1-MARK QUESTION

75 questions in this booklet

SECTION A

Answer **all** the questions in this section.

Write your answer for each question in the box provided.

1 Which of the following is a function of money?

A To act as an incentive to invest
B To act as a standard of deferred payment
C To be generally acceptable
D To be widely recognisable

Your answer ☐ **[1]**

2 What is it assumed that firms seek to maximise?

A Income
B Profit
C Revenue
D Utility

Your answer ☐ **[1]**

3 Which of the following will cause an extension in demand for a product X?

A A fall in the price of X if the price and quantity of X are inversely related
B A fall in the price of Y if X and Y are substitutes
C An increase in consumer preferences for X
D An increase in income if X is a normal good

Your answer ☐ **[1]**

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10 The price of good X rises from £10 to £12.50. As a result, demand for good Y falls from 1200 to 1080. What is the cross elasticity of demand for good Y with respect to good X, and what is the relationship between the two goods?

A Cross elasticity of demand is –0.4, and the goods are complements
B Cross elasticity of demand is –0.8, and the goods are complements
C Cross elasticity of demand is –0.4, and the goods are substitutes
D Cross elasticity of demand is –0.8, and the goods are substitutes

Your answer ☐ **[1]**

11 Which of the following combination contains two correct statements about a merit good?

	Statement 1	Statement 2
A	Consumers do understand the benefits of consuming them	There is information failure in the market
B	There is information failure in the market	They may create positive externalities
C	They may create negative externalities	They must be provided by the government
D	They must be provided by the government	They may create positive externalities

Your answer ☐ **[1]**

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Turn over

10 The price of good X rises from £10 to £12.50. As a result, demand for good Y falls from 1200 to 1080. What is the cross elasticity of demand for good Y with respect to good X, and what is the relationship between the two goods?

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D	They must be provided by the government	They may create positive externalities

Your answer ☐ **[1]**

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12 The table below shows the output and total costs for a firm. The firm has fixed costs of £100 000 per week.

Output per week (000's)	Total costs (£)
24 000	388 000
26 000	438 000
28 000	492 000
30 000	550 000
32 000	612 000

From the above data it can be concluded that

A average cost is £16 when output is 32 000.
B average variable cost is £17.57 when output is 28 000.
C marginal cost is £40 000 when output is 26 000.
D total variable cost is £450 000 when output is 30 000.

Your answer ☐ **[1]**

13 When is price elasticity of supply most likely to be greater than one?

A The product is an agricultural product
B The product is a necessity
C There are a large number of firms in the market
D There is no spare capacity in the industry

Your answer ☐ **[1]**

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SECTION B

Answer **all** the questions in this section.

Trends in UK Road Passenger Transport

The demand for the vast majority of road transport is a derived demand. Since 1950, road traffic in the UK has increased almost tenfold up to 303.7 billion vehicle miles in 2013. The increase has mainly been accounted for by an increase in the number of cars and vans. This has brought with it a number of problems including increased congestion, air and noise pollution. However, more recently, the growth in road use has slowed and since 2008 there has been a slight decrease. Population has increased from 50 million in 1950 to 64 million in 2013 and GDP has increased from £0.29 trillion in 1949 to £1.50 trillion in 2012. However, since 2009 the price of unleaded petrol has increased from 86.3 pence per litre to 130.8 pence per litre in December 2013.

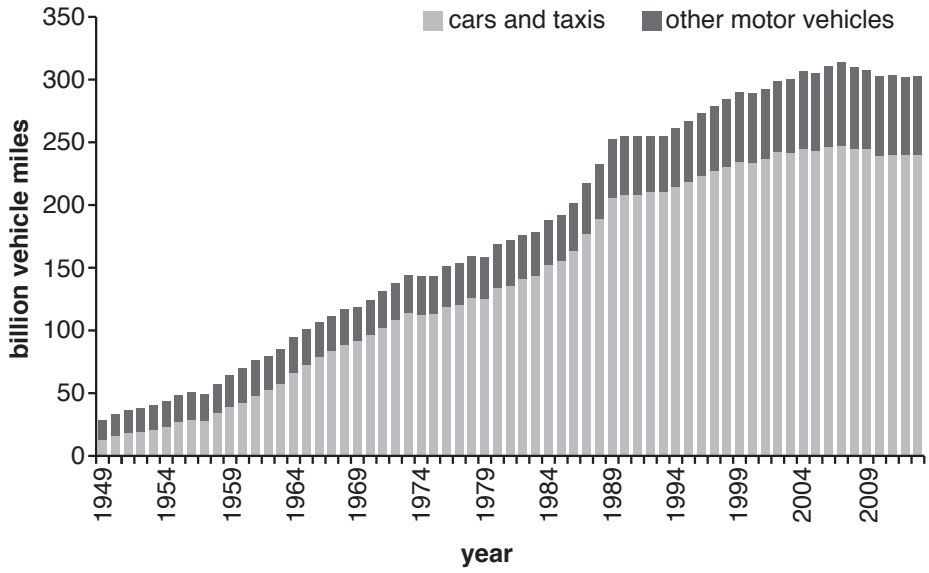


Fig. 1 Road Traffic in Britain since 1949

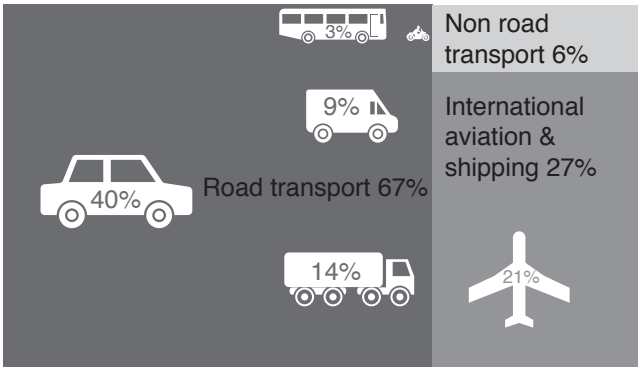
There was a slight decline in bus usage (outside London) from 1985–2008. In 2012 estimates for the income elasticity of demand for buses suggest an income elasticity of demand between –0.5 and –1.0. Price elasticity of demand for buses is –0.36 in the short run and –0.7 in the long run. Cross elasticity for buses is estimated to be even lower, with the cross elasticity of demand between bus fares and car travel just –0.1.

Bus fares have increased in real terms since 1986 but bus travel for older and disabled people has been free in England since April 2008. The Transport Act 2000 required all local authorities to provide low price travel for older and disabled people. From April 2008 this was extended to free travel by bus anywhere in England.

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In the year ending 2014, the average level of subsidy for buses per passenger journey was 6.3 pence. This decreased (adjusted for inflation) from 10.5 pence in 2005. The subsidy in London is 1.8 pence per passenger journey.



- In 2011, road transport was the largest contributor to total transport greenhouse gas emissions (67% of the total).
- Cars and taxis contributed the most of any transport mode (40% of total).

*Non road transport consists mainly of domestic aviation and shipping and rail.

Fig. 2 UK Transport: Greenhouse gases (GHG) emissions by mode of transport 2011

There has also been growing concern about the contribution of road transport to rising emissions, air pollution and global warming.

The London Lorry Control Scheme (LLCS) has been in existence since 1986. It was set up to protect Londoners against the disturbance caused by heavy lorries at night and at weekends. Its objective is to reduce noise nuisance at antisocial times by eliminating through traffic and minimising the environmental effects of heavy lorries. Lorries are banned (or prohibited) from using urban roads during the most environmentally sensitive times, from 9pm–7am Monday–Saturday, and from 1pm Saturday to 7am Monday.

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16 **(a)** What economic term is used to describe pollution and congestion?

.....

..... **[1]**

(b) **(i)** Explain what is meant by the term 'derived demand'.

.....

.....

.....

..... **[2]**

(ii) Using information from the case study identify **two** factors that may have led to the increase in car travel over the period shown in Fig. 1.

.....

..... **[2]**

(c) Explain what is meant by the term 'income elasticity of demand'.

.....

.....

.....

..... **[2]**

(d) Using information from the case study, calculate the effect of a 10% fall in bus fares on

(i) bus travel in the long run.

.....

..... **[2]**

(ii) the demand for car travel.

.....

..... **[2]**

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SECTION A

Answer **all** the questions in this section.

Write your answer for each question in the box provided.

1 Which of the following is a function of money?

A To act as an incentive to invest
B To act as a standard of deferred payment
C To be generally acceptable
D To be widely recognisable

Your answer ☐ **[1]**

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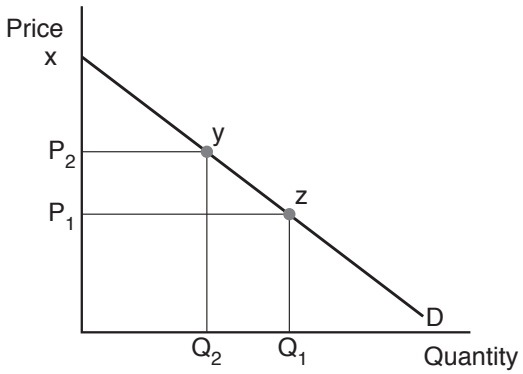
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4 In the diagram below, price rises from P1 to P2. What effect does this price movement have on consumer surplus?



A Increases it to P1xz
B Increases it by P2xy
C Reduces it by P1xz
D Reduces it by P1P2yz

Your answer ☐ **[1]**

5 Profit is a payment to which factor of production?

A Capital
B Enterprise
C Labour
D Land

Your answer ☐ **[1]**

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6 Price elasticity of demand for a good will be determined by

A a consumers level of income.
B the age distribution of the population.
C the availability of alternative products.
D the time it takes to produce the product.

Your answer ☐ **[1]**

7 Which of the following is an external economy of scale?

A Employment of specialist managers
B Falling average costs as a firm increases its output
C Improved rail connections to distant parts of the country
D Reduced input costs, as large firms can negotiate lower input costs

Your answer ☐ **[1]**

8 What is marginal social cost?

A Marginal external cost minus marginal private cost
B Marginal private benefit plus marginal external cost
C Marginal private cost plus marginal external cost
D Marginal social benefit minus marginal private cost

Your answer ☐ **[1]**

9 Income elasticity of demand for good X was 2.5. Income increased from £180 which caused demand to increase from 7800 to 9750. What was the new income?

A £194.40
B £198.00
C £225.00
D £292.50

Your answer ☐ **[1]**

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SECTION A

Answer **all** the questions in this section.

Write your answer for each question in the box provided.

1 A farm decides to reduce its production of strawberries to increase its production of raspberries. What is the relationship between the two goods?

A Competitive demand
B Competitive supply
C Composite supply
D Joint demand

Your answer ☐ **[1]**

2 What does the economic problem of scarcity result from?

A A mixed economy
B Government failure
C Limited resources
D Limited wants

Your answer ☐ **[1]**

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6 Why will a merit good be underconsumed?

A Consumers underestimate its benefits
B It leads to negative consumption externalities
C It will only be provided by the state
D Socially optimum output is below quantity traded

Your answer ☐ **[1]**

7 When will a maximum price placed on the market for a good be ineffective?

A When demand for the good is elastic
B When supply of the good is elastic
C When the maximum price is fixed above the equilibrium price
D When there is excess demand for the product in the market

Your answer ☐ **[1]**

8 Good X has an income elasticity of demand of −1.25. The quantity demanded of good X rises from 48 000 per week to 60 000 per week. Which change in income must have occurred to cause this rise in demand?

A Income must have fallen by 16%
B Income must have fallen by 20%
C Income must have risen by 16%
D Income must have risen by 25%

Your answer ☐ **[1]**

9 The cross elasticity of demand between X and Y is 0.5 and between X and Z it is 1. What will happen when the price of X falls?

A A fall in demand for Y and a fall in demand for Z
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C An increase in the degree of substitutability of the factors used to produce the product
D An increase in the spare capacity of the firms in the industry

Your answer ☐ **[1]**

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11 A small firm has a total fixed cost of £100. The table below shows its total variable cost across a range of output.

Output	Total variable cost (£)
10	20
20	30
30	50
40	80

If the firm produces 20 units of output what will be its average total cost?

A £1.5
B £3.5
C £5.0
D £6.5

Your answer ☐ **[1]**

12 If price and total revenue are inversely related, what is price elasticity of demand?

A Elastic
B Inelastic
C Perfectly inelastic
D Unitary

Your answer ☐ **[1]**

13 What will be the effect on consumer and producer surplus if costs of production increase?

A Consumer and producer surplus will fall
B Consumer and producer surplus will rise
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Your answer ☐ **[1]**

14 Minimum efficient scale of production occurs where:

A average total cost is at a minimum
B diseconomies of scale are at a maximum
C external economies of scale are zero
D total cost is falling

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15 What does it mean if a good provides a marginal external benefit?

A The good is a demerit good
B The good is overproduced
C The good is underconsumed
D The good leads to negative externalities

Your answer ☐ **[1]**

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7

SECTION B

Answer **all** the questions in this section.

A Defence Controversy

The UK budget deficit grew rapidly after the 2009 recession. In order to reduce the size of the budget deficit, the UK government has been trying to reduce its spending. This policy has included reduced spending on healthcare and education. However, the government has been reluctant to reduce spending on defence.

Many economists argue that defence needs to be provided by the state since it is a public good which, if left to the free market, would not be produced. A controversial aspect of the government's plans is spending on defence. In particular, whether or not to replace Britain's four existing Trident nuclear missile submarines with four new ones.

The Ministry of Defence has said it will cost £41 bn to build the replacement system. Total (central) government spending in 2016 was £588.8 billion. (Fig. 1 shows the breakdown of this spending.) Those in favour of a nuclear deterrent argue that it is an essential part of Britain's defence strategy. The Prime Minister argued it would be "sheer madness" to give up the UK's nuclear weapons, because of the threat posed by other countries with a nuclear defence capability.

Opponents argue that the cost is too high and that the money would be better allocated to healthcare or education. One estimate suggests that the cost of Trident over 30 years will be £200 bn and this would be enough to fully fund hospital accident and emergency services for 50 years, employ 200 000 new nurses, build 40 000 new primary schools, or cover tuition fees for 5 million students.

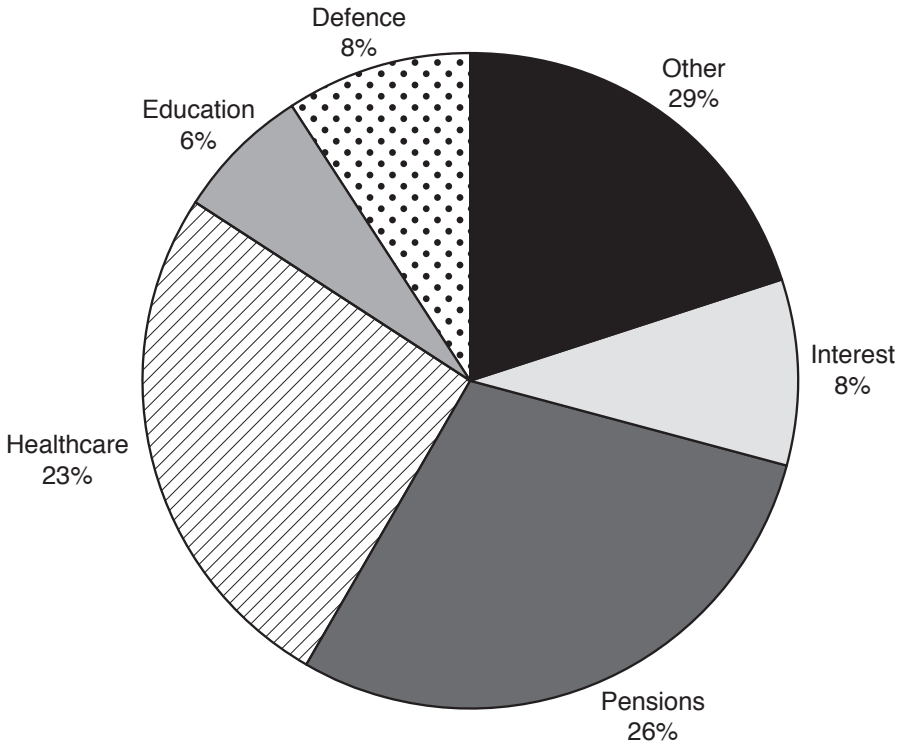


Fig. 1 UK Government spending by area in 2016

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8

16 (a) State one factor of production that might be used in the production of submarines.

.....

..... **[1]**

(b) State and explain two factors that might lead to an increase in the cost of replacing Trident.

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..... **[4]**

(c) Using defence as an example, explain two characteristics of a public good.

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..... **[4]**

(d) Using the concept of scarcity and the information in Fig. 1, explain the effect of increased government spending on defence.

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..... **[3]**

(e) Using information in the case study, calculate, in pounds, how much more the UK government spent on healthcare and education than on defence in 2016.

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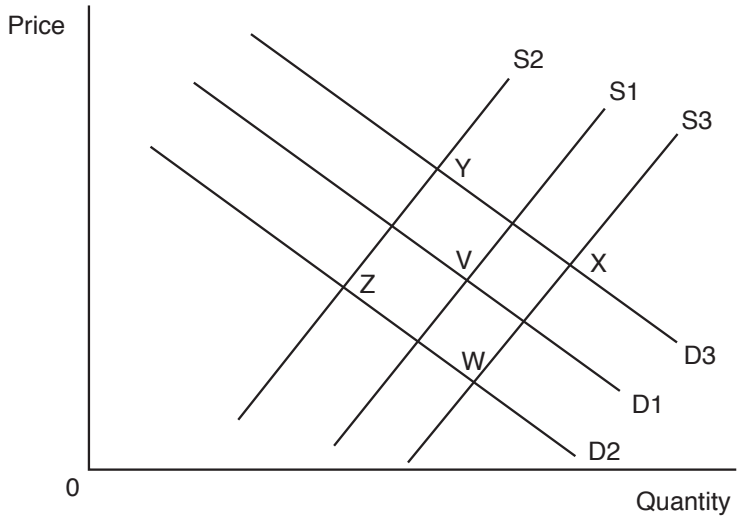
.....

..... **[3]**

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3

3



The market for a product is originally in equilibrium at V. There is a successful advertising campaign for the product and a rise in the rental cost of office space for the producer. At which point will the market reach a new equilibrium?

A W
B X
C Y
D Z

Your answer ☐ **[1]**

4 Which of the following statements about average fixed cost (AFC) is true?

A AFC declines as a firm increases output
B AFC does not change as output falls
C AFC increases as output increases
D AFC will always be greater than price

Your answer ☐ **[1]**

5 Which one of the following is a function of a government in a mixed economy?

A Banning public goods
B Producing free goods
C Reducing labour market flexibility
D Regulating some firms

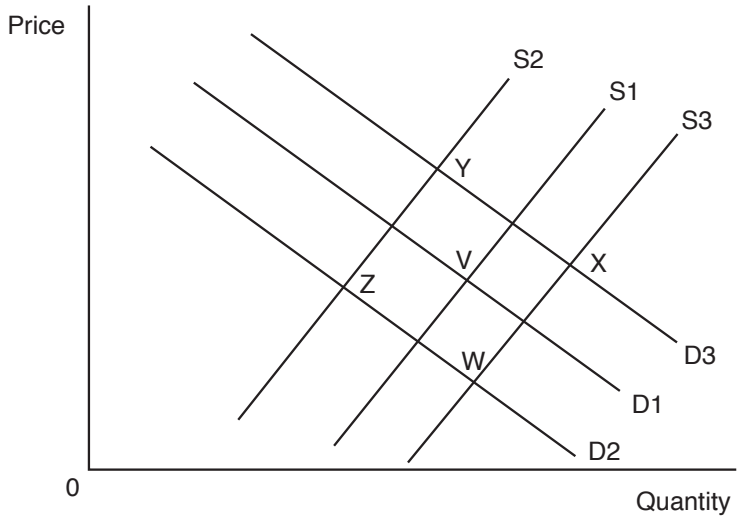
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Turn over

3

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Turn over

6 Why will a merit good be underconsumed?

A Consumers underestimate its benefits
B It leads to negative consumption externalities
C It will only be provided by the state
D Socially optimum output is below quantity traded

Your answer ☐ **[1]**

7 When will a maximum price placed on the market for a good be ineffective?

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SECTION A

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Write your answer for each question in the box provided.

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A Free universal health care
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2 What will be the long-term effect on a firm of a new production system that increases the division of labour?

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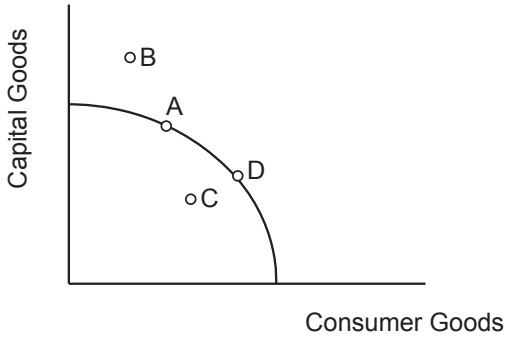
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Your answer ☐ **[1]**

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11 A country is currently making full use of all its resources. It decides to produce less consumer goods. Which of the following best represent the choice this country has made?



A A to B
B B to C
C C to D
D D to A

Your answer ☐ **[1]**

12 Moral hazard can arise if health care is state funded. How could this be explained?

A Consumers do not know how much health care they may need
B Consumers do not take into account the costs to 'third parties'
C Consumers underestimate the future costs of unhealthy living
D Consumers will take excessive risk with their health if health care is free

Your answer ☐ **[1]**

13 When is allocative efficiency achieved?

A Consumer surplus is greater than producer surplus
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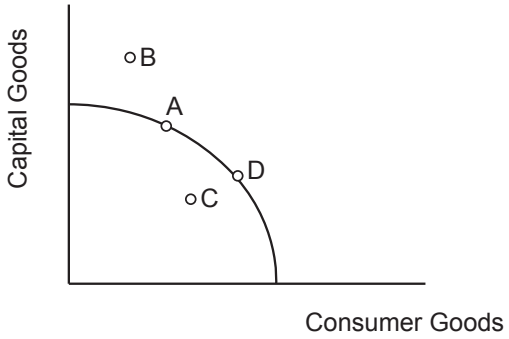
14 If there is an increase in the interest rate, what will be the most likely effect on a market?

A Demand curve will shift to the right
B Equilibrium quantity traded will rise
C Supply will become more elastic
D Supply curve will shift to the left

Your answer ☐ **[1]**

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15 Which of the following are examples of public goods?

A Courts and prisons
B Hospitals and ambulance services
C Rail and bus services
D Street lighting and street cleaning

Your answer ☐ **[1]**

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7

SECTION B

Answer **all** the questions in this section.

Avocados are an agricultural fruit crop grown in Africa, Asia and North and South America. Mexico is the largest supplier. The countries listed below accounted for 85% of total world supply in 2014.

Top 10 Avocado Producing Countries		
Rank	Country	Production in tonnes, 2014
1	Mexico	1520695
2	Dominican Republic	428301
3	Peru	349317
4	Indonesia	307326
5	Colombia	288739
6	Kenya	218692
7	United States of America	179124
8	Rwanda	161519
9	Chile	160000
10	Brazil	156699

Fig. 1 World avocado production. 2014 = 4 335 974 tonnes

Whilst the world price of many foods has had large price fluctuations, this has not been true in the case of the avocado. Demand has continued to exceed supply in the global market. This has meant that the price of the avocado between 1996 and 2017, overall, has risen in the UK.

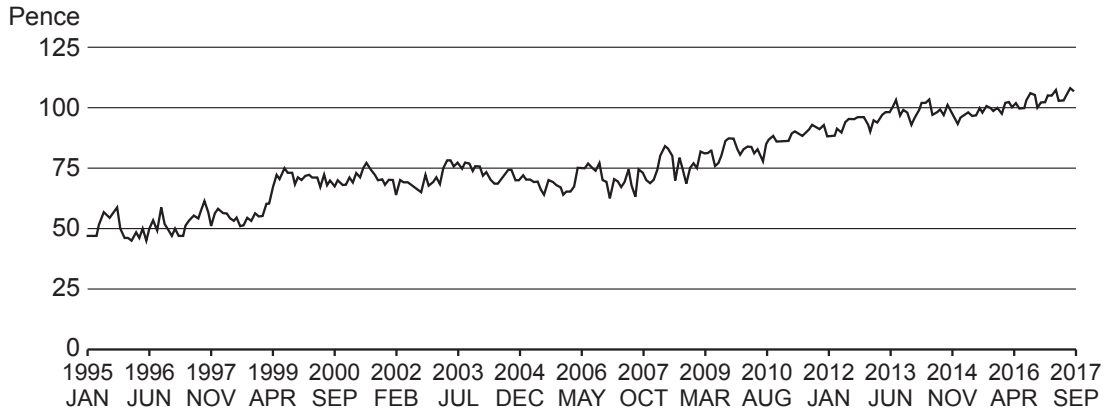


Fig. 2 UK price of avocados

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In the UK twenty years ago, avocados were seen as a luxury food bought by higher income households, but today this has changed. Whilst GDP increased from £1694 m in 2012 to £2041 m in 2017, sales of avocados increased by 184%.

Two reasons for the increased worldwide sales have been: claims, supported by celebrity endorsements, that avocados have health benefits, such as lowering cholesterol; and the rise in the standard of living in countries such as China and India.

However, the US government is concerned about the effect of imported avocados on domestic growers. It is considering, therefore, imposing a tax on imports of the fruit to protect US farmers' income.

16 (a) What is meant by 'demand'?

.....

..... **[1]**

(b) (i) Calculate the percentage of world output supplied by Mexico in 2014.

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..... **[4]**

(ii) Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.

.....

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..... **[2]**

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SECTION A

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5 When will a product tend to have price elastic demand?

A When it has addictive tendencies
B When it has a large number of substitutes
C When it is viewed as a necessity
D When it can last a long time

Your answer ☐ **[1]**

6 The information below shows the price at which different levels of output can be sold and the total cost of production for each level of output.

Price (£)	Quantity Per day	Total cost (£)
70	500	1000
54	600	1800
40	700	2400
32	800	3000
28	900	3800
26	1000	4750

If the price of the product is £54 what is the firm's average cost?

A £0.33
B £3.00
C £11.10
D £33.33

Your answer ☐ **[1]**

7 The average cost of producing 20 units of a product is £30 and the average cost of producing 21 units is £32. What is the marginal cost of the 21st unit?

A £2
B £32
C £42
D £72

Your answer ☐ **[1]**

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4

8 The table below shows the price a firm charges and the total cost over a range of output 1–5.

Output	Price (£)	Total cost (£)
1	10	9
2	9.5	17
3	9	23
4	8.8	31.8
5	8.5	40.5

At which level of output is profit maximised?

A 2
B 3
C 4
D 5

Your answer ☐ **[1]**

9 The price of a product falls from £40 to £32 and as a result demand rises from 200 to 220. What is the price elasticity of demand?

A −2.5
B −2.0
C −0.5
D −0.4

Your answer ☐ **[1]**

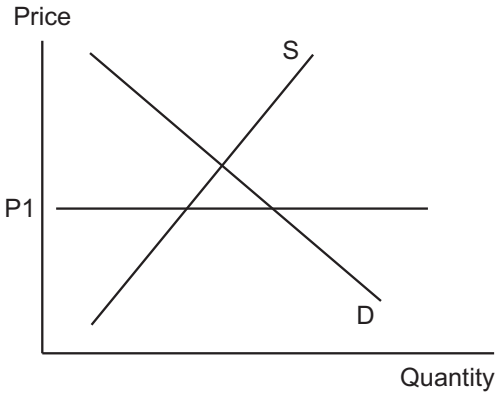
10 In which circumstance may a firm experience diseconomies of scale?

	Quantity of capital employed	Quantity of enterprise employed	Quantity of labour employed	Quantity of land employed
A	Increased	Increased	Increased	Increased
B	Unchanged	Increased	Increased	Increased
C	Unchanged	Unchanged	Increased	Increased
D	Unchanged	Unchanged	Increased	Unchanged

Your answer ☐ **[1]**

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8 The diagram below shows the supply and demand for strawberries.



Which of the following would be most likely to happen if the price was set at P1?

A Market price will fall
B More suppliers will enter the market
C The market will be in equilibrium
D There will be a shortage

Your answer ☐ **[1]**

9 What is the main role of firms in a market economy?

A To look after the welfare of all citizens
B To pay subsidies
C To provide goods and services
D To provide labour

Your answer ☐ **[1]**

10 When is productive efficiency achieved?

A Account is taken of all external costs and benefits as well as the internal costs and benefits
B Goods and services are allocated according to who needs them most
C Marginal utility of the good or price consumers are willing to pay equals the marginal cost
D Maximum number of goods and services are produced with a given amount of inputs

Your answer ☐ **[1]**

11 Which of the following is a definition of ceteris paribus?

A Assuming everything else stays constant
B Demand is exactly equal to supply
C Resources used in the production process
D The Government intervenes in the market

Your answer ☐ **[1]**

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12 Which of these is a free good?

A Fire service
B Healthcare
C Roads
D Sunlight

Your answer ☐ **[1]**

13 If the cross elasticity of demand between two goods is –1.2 what are the two goods?

A Complements
B Inferior
C Substitutes
D Unrelated

Your answer ☐ **[1]**

14 What are positive externalities?

A Benefits gained by consumers when they buy a product
B Benefits gained by governments from the production of a product
C Benefits gained by producers when they sell a product
D Benefits gained by third parties who are not directly involved in the consumption or production of a product

Your answer ☐ **[1]**

15 Which of the following is a positive statement?

A Deflation is bad for everyone
B Low unemployment benefits everyone
C Market economies are always the most efficient
D The UK is a mixed economy

Your answer ☐ **[1]**

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7

SECTION B

Answer **all** the questions in this section.

UK Energy Market

Scientists predict that if global warming continues, it is likely to have a devastating effect on the planet. This view has forced governments, including the UK's, to agree policies to limit global warming. These policies aim to reduce the use of energy sources which produce greenhouse gases and encourage greener energies.

UK electricity bills have risen by 75% since 2004, despite a fall in demand of roughly 10%. One of the reasons for these rises is that the government has increased indirect taxes on electricity consumption in order to subsidise renewable sources and to encourage energy efficiency. The cost of clean energy subsidies added to consumer bills has almost tripled in the last five years, and is set to increase further. Critics argue the costs of subsidies should be met by direct taxation. This would help, also, to protect the poor from price rises. A price cap has been introduced by Ofgem, the energy markets regulator which benefits 15 million energy users.

Shale gas extraction has increased in a number of countries, including the USA, in recent years. This involves drilling through rocks, which can lead to shale gas leaking into surrounding groundwater and cause air pollution and noise disturbance. Extraction is often conducted near built-up areas and can cause earth tremors. In November 2019, the government suspended shale gas extraction, due to fears about earthquakes it had been causing in Lancashire.

New offshore wind power projects have been announced in the UK to be delivered by 2025. These will power more than seven million homes at a lower-than-expected cost as the cost of offshore wind has fallen by about 30% in the last two years. The government says the wind farms represent a breakthrough, typically generating greener electricity without subsidy. The cheapest operator will provide power for as low as £40 per megawatt hour. By comparison, power from Hinkley Point C – the new nuclear power station in Somerset, also due to open in 2025, which has been heavily subsidised is expected to cost £92.50 per megawatt hour. The government expects the overall wholesale electricity price will range between £48.95 in 2023–25 to £52.36 per megawatt hour in 2026–27.

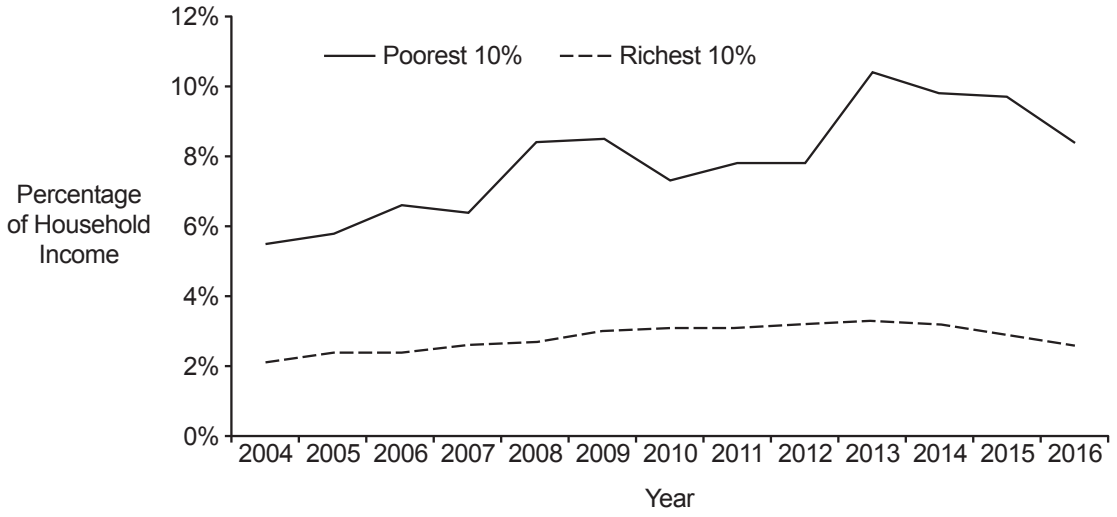


Fig. 1: Percentage of household income spent on energy for the richest and poorest 10% of the UK population

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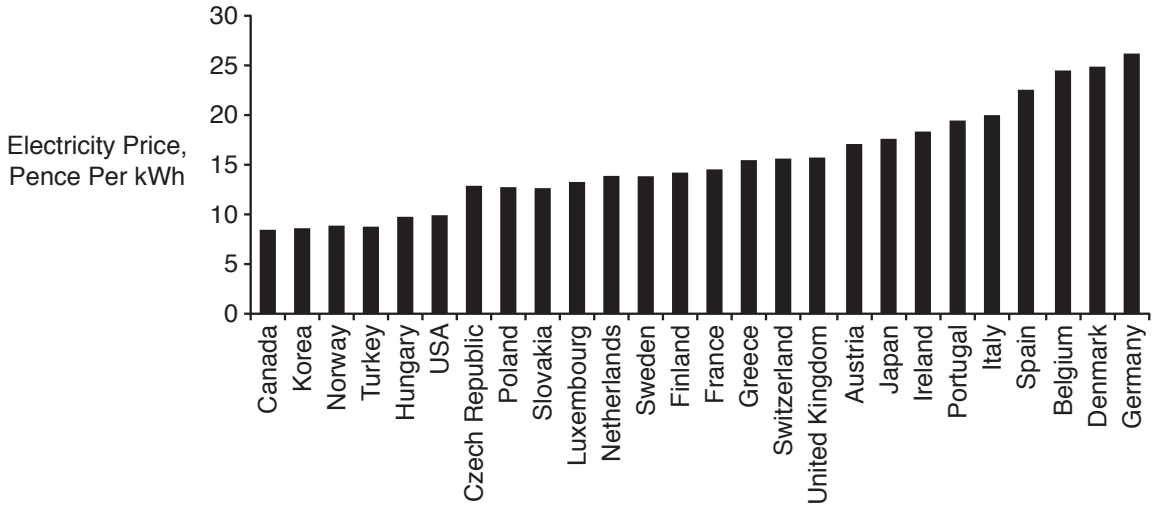


Fig. 2: Domestic electricity price in developed nations in pence per kilowatt hour (kWh) 2017

16 (a) Using **Fig. 1**, calculate how much more of the poorest households' income was spent on energy compared to the richest households in 2016.

.....

.....

..... **[1]**

(b) (i) Using **Fig. 2**, if the UK Government introduces a tax so that there is a 50% increase in the total electricity price in 2018 compared to 2017, what would the price be per kilowatt hour (kWh) in the UK?

.....

.....

.....

..... **[2]**

(ii) State what impact the increase in electricity price would have on consumer surplus.

.....

..... **[1]**

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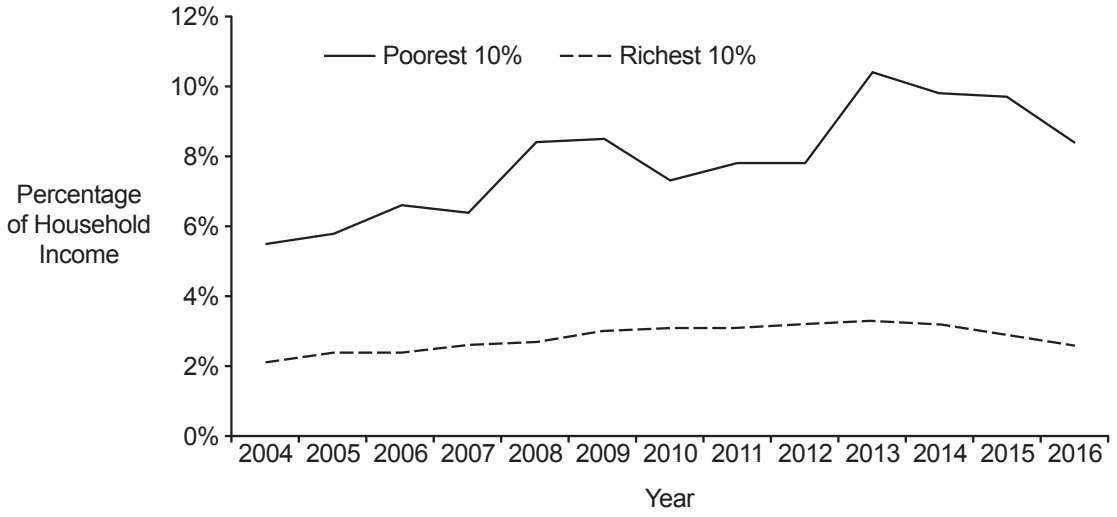


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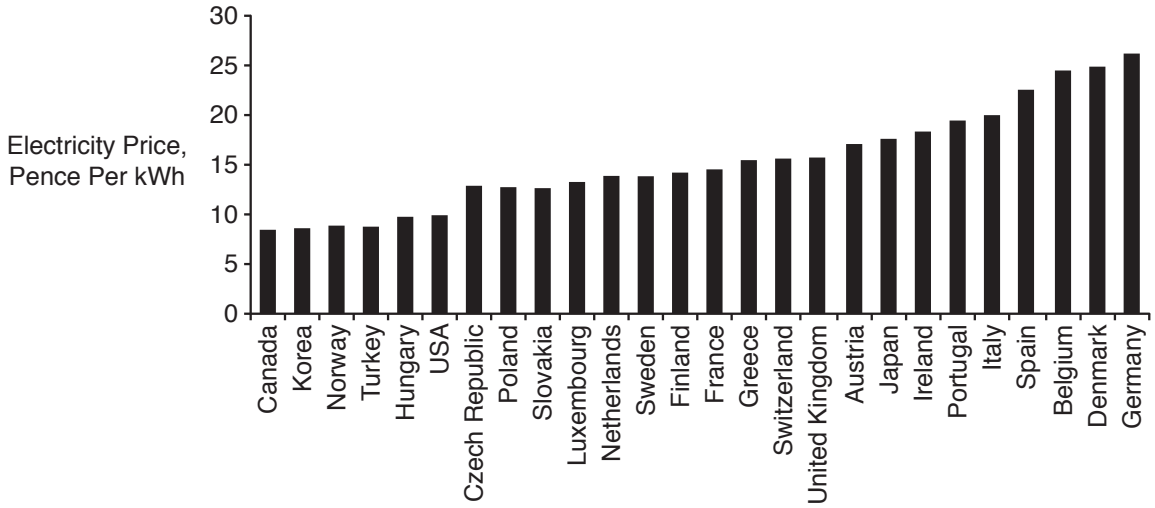


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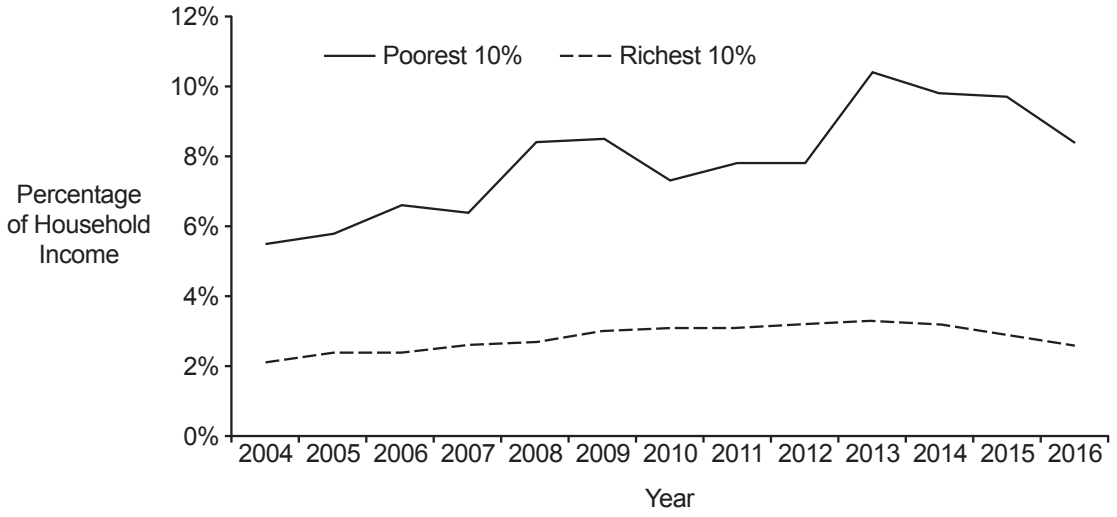


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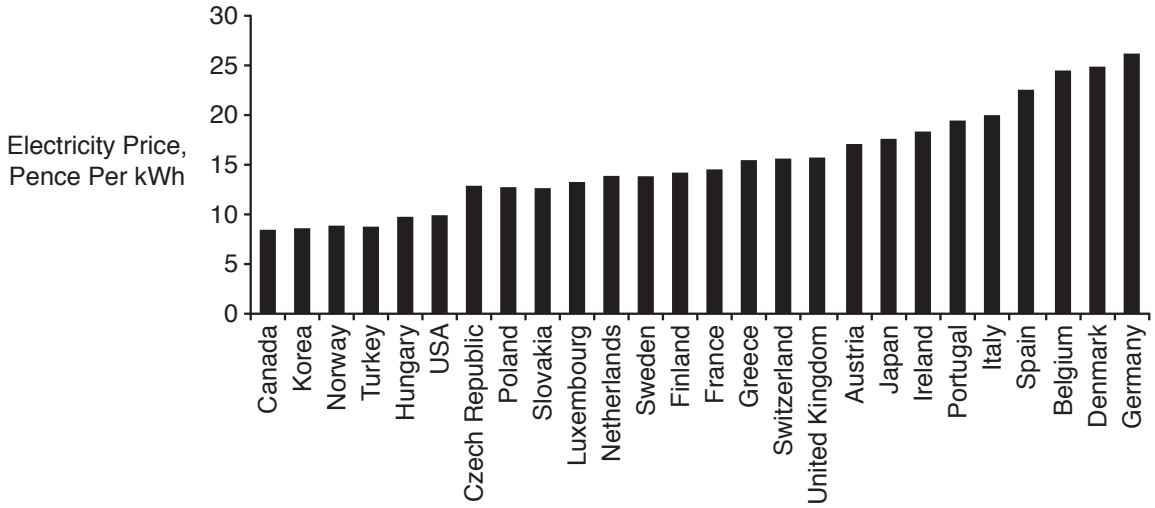


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(ii) State what impact the increase in electricity price would have on consumer surplus.

.....

..... **[1]**

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10

(d) (i) What type of economic system is likely to have the most government intervention?

..... **[1]**

(ii) Using the information provided, explain **two** benefits of government intervention in the energy market.

1 .....

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[4]

(e)* Evaluate, using an appropriate diagram(s), the effects of an increase in the supply of alternative greener energy on the electricity market. **[10]**

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SECTION A

Answer **all** the questions in this section.

Write your answer for each question in the box provided.

1 Which factor of production receives the reward of interest?

A Capital
B Enterprise
C Labour
D Land

Your answer ☐ **[1]**

2 The quantity supplied of a product is 2000 when its price is £40. If price elasticity of supply is 0.8, what will be the quantity supplied when price rises to £50?

A 2160
B 2400
C 2500
D 3600

Your answer ☐ **[1]**

3 Which of the following is an example of composite demand?

A Demand for chairs increases as the price of tables falls
B Demand for delivery drivers increases as more consumers shop online
C Demand for Samsung mobile phones decreases as iPhones become cheaper
D Demand increases for cheese leading to a fall in supply of cream

Your answer ☐ **[1]**

4 Which change would cause the demand curve for houses to shift to the right?

A A decrease in income tax
B A decrease in the cost of renting houses
C An increase in emigration to the EU
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6 Due to excellent growing conditions the wheat harvest is much greater than is usual. What impact would this be **most** likely to have on the equilibrium price and output of wheat?

A Fall in equilibrium price and decrease in equilibrium output
B Fall in equilibrium price and increase in equilibrium output
C Rise in equilibrium price and decrease in equilibrium output
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7 The table below shows the change in the demand for a product given a change in income. What type of good does this information indicate the product is?

Year	Income	Quantity demanded per annum
2020	£30 000	20
2021	£36 000	21

A Inferior good
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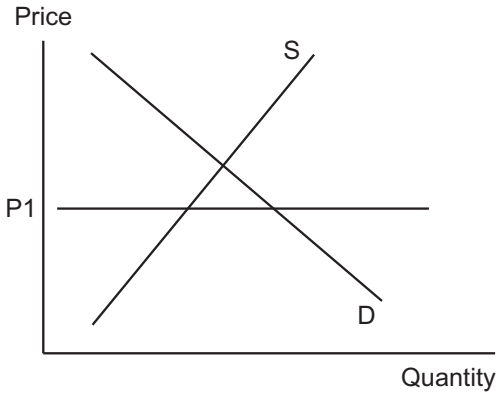
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8 The diagram below shows the supply and demand for strawberries.



Which of the following would be most likely to happen if the price was set at P1?

A Market price will fall
B More suppliers will enter the market
C The market will be in equilibrium
D There will be a shortage

Your answer ☐ **[1]**

9 What is the main role of firms in a market economy?

A To look after the welfare of all citizens
B To pay subsidies
C To provide goods and services
D To provide labour

Your answer ☐ **[1]**

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11 Which of these defines an inferior good?

A Quantity demanded decreases when incomes decrease
B Quantity demanded decreases when incomes increase
C Quantity demanded decreases when prices increase
D Quantity demanded increases when prices increase

Your answer ☐ **[1]**

12 The price elasticity of demand of widgets is –1.0.

If the firm raises the price of widgets by 5%, this is likely to have what impact on the firm's total revenue?

A Decrease by 5%
B Decrease by more than 5%
C Increase by less than 5%
D No change

Your answer ☐ **[1]**

13 The quantity demanded for oranges falls from 600 to 300 when the price of apples falls by 25%.

In relation to the price of apples, what is the cross elasticity of demand for oranges?

A 12.5
B 6.0
C 2.0
D 0.5

Your answer ☐ **[1]**

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B 6.0
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guidemygrades.com

14 A firm has successfully introduced division of labour in its factory.

Which of these is the **most** likely outcome?

A Decrease in quantity supplied and decrease in equilibrium price
B Decrease in quantity supplied and increase in equilibrium price
C Increase in quantity supplied and decrease in equilibrium price
D Increase in quantity supplied and increase in equilibrium price

Your answer ☐ **[1]**

15 Which of these would lead to a fall in consumer surplus for a good?

A Decrease in cost of production
B Decrease in indirect tax
C Increase in price
D Increase in subsidy

Your answer ☐ **[1]**

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D Increase in quantity supplied and increase in equilibrium price

Your answer ☐ **[1]**

15 Which of these would lead to a fall in consumer surplus for a good?

A Decrease in cost of production
B Decrease in indirect tax
C Increase in price
D Increase in subsidy

Your answer ☐ **[1]**

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SECTION B

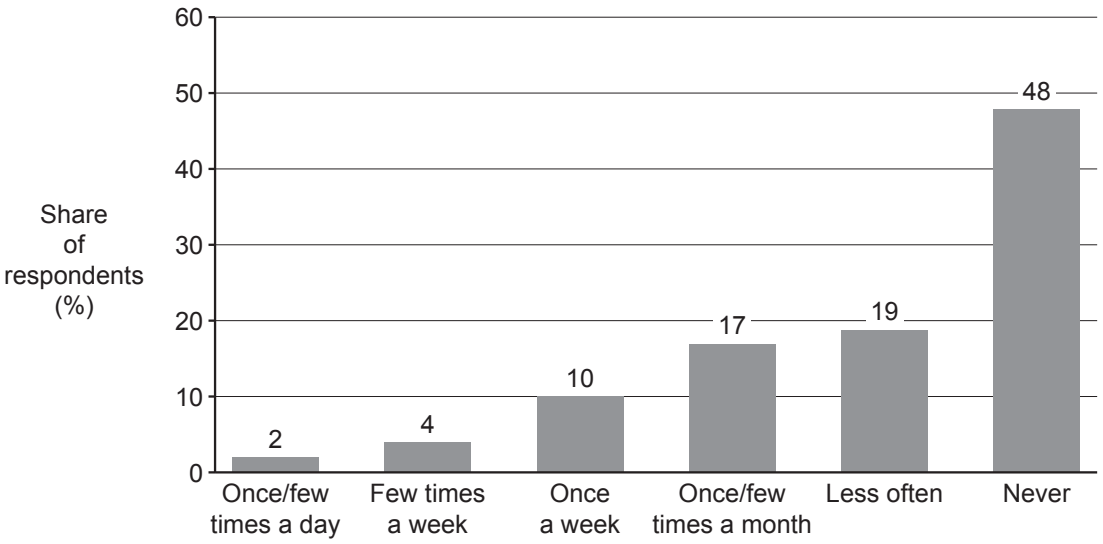
Flour Mills Worked Round The Clock To Meet Demand



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8

Fig. 1
Frequency of baking at home from scratch 2017



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16 (a) Using **Fig. 1**, state what percentage of people baked at home from scratch once a week or more often in 2017.

.....

..... **[1]**

(b) (i) Using the information in the case study, explain why there was an increase in demand for flour.

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..... **[2]**

(ii) Explain what the price elasticity of supply is likely to be for flour.

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..... **[2]**

(iii) Using the information in the case study, explain what impact the change in demand for yeast would have had on Red Star Yeast's producer surplus.

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.....

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..... **[2]**

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SECTION A

Write your answer to each question in the box provided.

1 Which of these contains all the four factors of production?

A Capital, enterprise, labour, land
B Capital, labour, profit, rent
C Enterprise, interest, land, wages
D Interest, profit, rent, wages

Your answer ☐ **[1]**

2 What is the income elasticity of demand if a 10% increase in consumer income leads to a 40% decrease in quantity demanded?

A –4.00
B –0.25
C +0.25
D +4.00

Your answer ☐ **[1]**

3 Which of these is an example of a normative statement?

A Taxes on cigarettes provide the government with tax revenue
B The government should raise taxes even higher on cigarettes
C The tax on cigarettes accounts for 80% of the price of cigarettes
D VAT is one of the taxes charged on cigarettes

Your answer ☐ **[1]**

4 Opportunity cost is defined as the value of:

A all alternative goods foregone
B the cost of other goods and services
C the cost imposed on a third party
D the next best alternative foregone

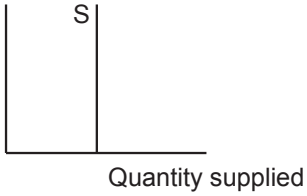
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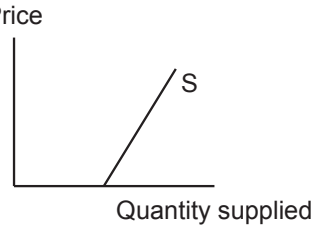
5 The diagrams show the relationship between price and quantity supplied of a product.

Which supply curve shows unit price elasticity of supply along the curve?

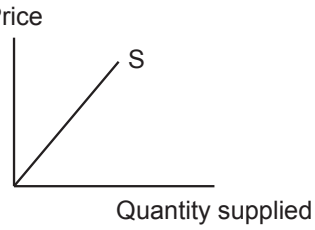
A



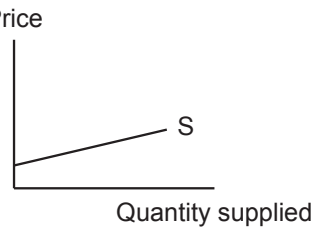
B



C



D



Your answer ☐ **[1]**

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6 Which item is **most** likely to be used as a medium of exchange in the UK?

A A fifty pound bank note
B A gold wedding ring
C A government bond
D A savings account

Your answer ☐ **[1]**

7 The table shows the quantity demanded and quantity supplied of a product at different prices.

Price	Quantity Demanded	Quantity Supplied
£10	100	20
£15	80	30
£20	75	50
£25	60	60
£30	40	80

At the equilibrium price, what is the total revenue?

A £1000
B £1200
C £1500
D £2400

Your answer ☐ **[1]**

8 Which of these is a cause of market failure?

A Positive externalities
B Positive income elasticity of demand
C Positive price elasticity of supply
D Positive private costs

Your answer ☐ **[1]**

9 Which of these would lead to a negative externality?

A A new firm which creates jobs for local people
B A new firm which processes coal, releasing carbon emissions
C Information on the effects of smoking cigarettes
D Subsidy for solar-powered electricity

Your answer ☐ **[1]**

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A A new firm which creates jobs for local people
B A new firm which processes coal, releasing carbon emissions
C Information on the effects of smoking cigarettes
D Subsidy for solar-powered electricity

Your answer ☐ **[1]**

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6 Which item is **most** likely to be used as a medium of exchange in the UK?

A A fifty pound bank note
B A gold wedding ring
C A government bond
D A savings account

Your answer ☐ **[1]**

7 The table shows the quantity demanded and quantity supplied of a product at different prices.

Price	Quantity Demanded	Quantity Supplied
£10	100	20
£15	80	30
£20	75	50
£25	60	60
£30	40	80

At the equilibrium price, what is the total revenue?

A £1000
B £1200
C £1500
D £2400

Your answer ☐ **[1]**

8 Which of these is a cause of market failure?

A Positive externalities
B Positive income elasticity of demand
C Positive price elasticity of supply
D Positive private costs

Your answer ☐ **[1]**

9 Which of these would lead to a negative externality?

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SECTION A

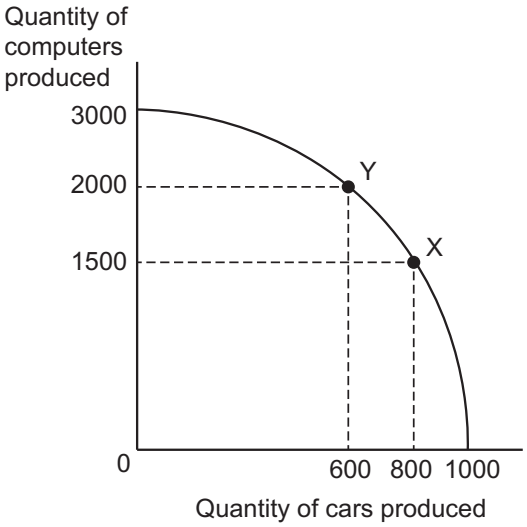
Write your answer to **each** question in the box provided.

1 Which is a positive externality of a new factory being built in a town?

A Air pollution
B Employment
C Noise
D Traffic congestion

Your answer ☐ **[1]**

2 The diagram shows the production possibility curve for a country that produces computers and cars.



The economy is currently producing at point X.

What would be the opportunity cost of moving to point Y?

A 200 cars
B 600 cars
C 500 computers
D 2000 computers

Your answer ☐ **[1]**

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10 The government sets a maximum price that can be charged for rents.
This is below the market equilibrium price.

What will be the result?

A Demand for rented properties will contract
B Price of rental properties will increase
C Price of rental properties will not change
D Supply of rented properties will contract

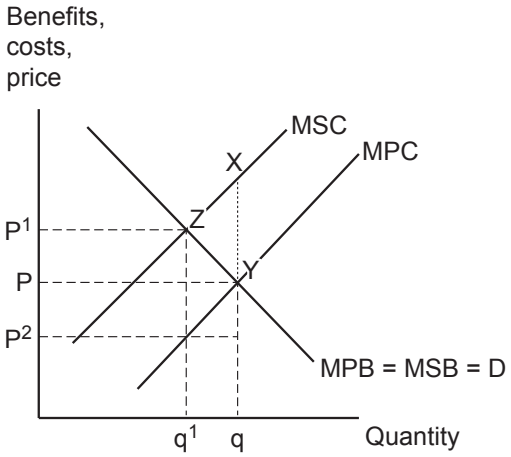
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11 Which of these is **not** a type of economic system?

A Market economy
B Mixed economy
C National economy
D Planned economy

Your answer ☐ **[1]**

12 The diagram shows the social and private costs of manufacturing chemicals.



Which of the statements is true?

A Costs to society are shown by MPC
B Social optimum level of output is q
C There is a net loss to society of triangle XYZ
D Without government intervention profit-maximising firms will charge a price of P2

Your answer ☐ **[1]**

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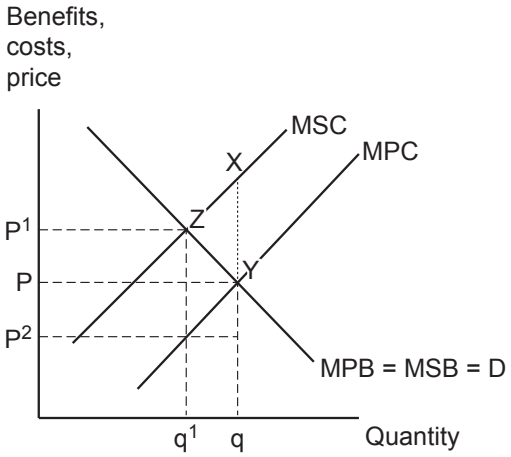
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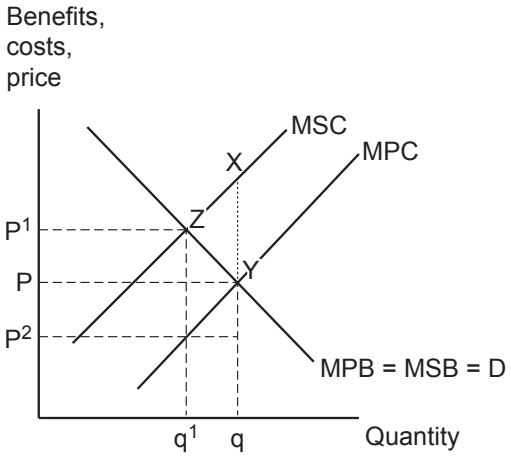
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13 The price of fidget toys was £5 and the quantity supplied at this price was 2750 units.
The price of fidget toys has now increased to £6.25, and the quantity supplied has increased to 3575 units.

What is the price elasticity of supply?

A 0.833
B 1.175
C 1.2
D 1.5

Your answer ☐ **[1]**

14 What is the **most** likely result of the introduction of division of labour?

A Increased costs of production
B Increased expenditure on capital equipment per worker
C Increased job satisfaction
D Increased productivity

Your answer ☐ **[1]**

15 Which would occur in a barter economy?

A Dependency on digital currencies
B Direct exchange of goods
C Use of gold as a medium of exchange
D Use of money as a medium of exchange

Your answer ☐ **[1]**

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Your answer ☐ **[1]**

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SECTION B

First, it was a fad. Now, as meat consumption falls, it's part of everyday life.

Veganuary is a global campaign that encourages people to go vegan. A record 500,000 people signed up to the Veganuary challenge to eat only plant-based foods for a month in January 2021. This included 150,000 people in Latin America, 80,000 in the USA and 50,000 in Germany. In 2021 the overall number was double the number in January 2019.

Research from the investment bank UBS on plant-based alternatives to meat, such as veggie burgers and sausages, showed a rising number of people trying the new products. The proportion of people who tried the alternatives rose from 48% to 53% between March and November 2020, according to UBS's survey of 3,000 consumers in the UK, US and Germany. It also found that half of those who tried plant-based alternatives continued to eat them at least weekly.

A spokesperson from Veganuary said "Pretty much everyone has accepted we need to be reducing animal products in our diets for environmental reasons. The way British supermarkets have embraced Veganuary in 2020 is truly game-changing with television and radio campaigns as well as promoting veganism on their websites and offering free recipes. They are not simply using it as a marketing opportunity, but are promoting the many benefits of plant-based eating. As key players of our food supply, they know that the only sustainable way forward is plant-focused."

Plant-based milk has been steadily growing and represented 14% of the milk category in 2019, according to statistics from the Plant Based Foods Association. While sales of plant-based milk continue to grow, sales of dairy milk are relatively flat. The cross elasticity of demand between oat milk and dairy milk is 0.23. Oat milk sales have jumped from 2020 to 2022 by 345%. The health benefits, such as high prebiotic fibre in oat milk are factors attracting customers. As consumers consider health to be more important than ever, they are willing to pay a premium for products that offer health benefits, as well as being able to contribute towards environmental protection. The income elasticity of demand for oat milk is +1.8. As well as the mass adoption of vegan and similar diets owing to moral concerns, plant-based milk market growth continues to be driven by an increase in milk allergies and lactose-intolerant consumers. This is encouraging manufacturers such as the Coca-Cola Company, to introduce new oat milk variants to appeal to their consumers, further driving oat milk sales.

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9

Fig. 1

Reasons people give for eating less or no meat

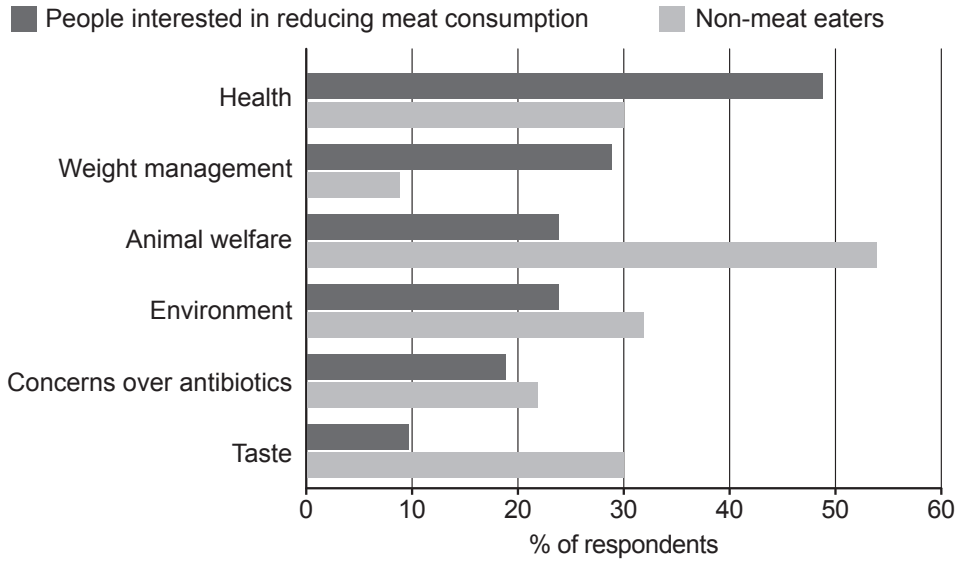
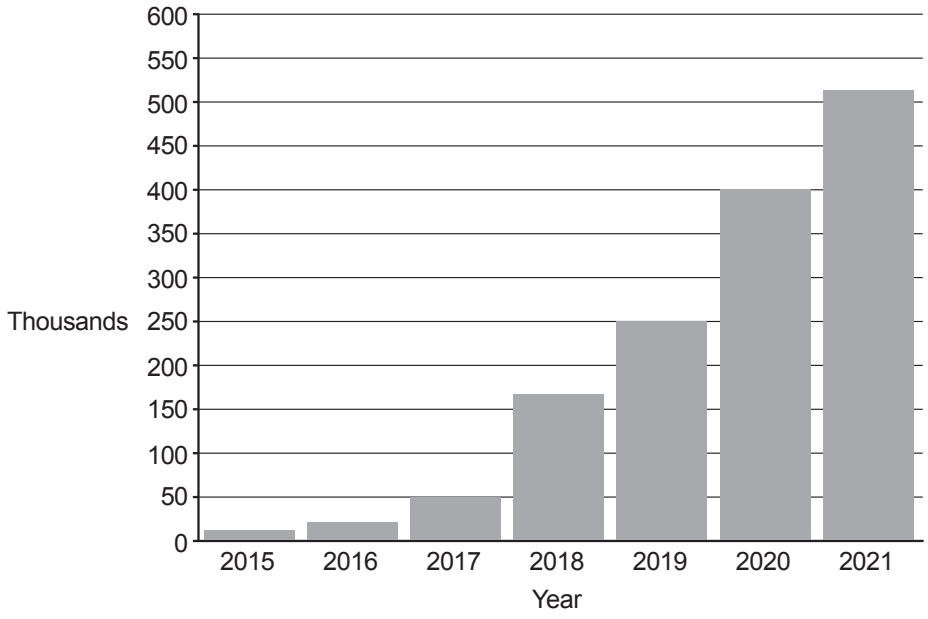


Fig. 2

Number of people signing up to Veganuary



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Turn over

16

(a) Using **Fig. 1**, state what percentage of non-meat eaters thought it was better for their health not to eat meat.

.....

..... **[1]**

(b)

(i) Using **Fig. 2**, calculate the percentage increase in the number of people who signed up for Veganuary from 2017 to 2021.

.....

.....

.....

..... **[2]**

(ii) Using the income elasticity value **(line 25)**, explain how a fall in income will affect the demand for oat milk.

.....

.....

.....

..... **[2]**

(c) Using a diagram, explain how supermarkets may respond to the popularity of Veganuary.

.....

.....

.....

..... **[4]**

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3 Which of these is an example of a normative statement?

A More people will use solar energy
B Solar energy will be the only type of energy available
C Solar energy is a natural source of energy
D The UK government must subsidise solar energy

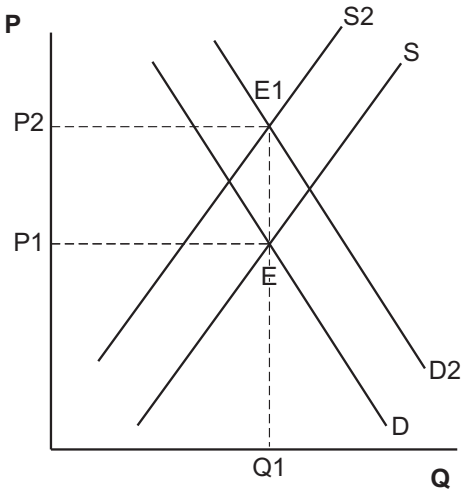
Your answer ☐ **[1]**

4 Which of these is **not** an example of a composite demand good?

A Chair
B Milk
C Oil
D Wood

Your answer ☐ **[1]**

5 The diagram shows the demand and supply of oil.
The market is initially in equilibrium at E.



What would be the **most** likely cause of the market equilibrium moving to E1?

A Decrease of costs of oil production and decrease in air travel
B Decrease of costs of oil production and increase in air travel
C Increase of costs of oil production and decrease in air travel
D Increase of costs of oil production and increase in air travel

Your answer ☐ **[1]**

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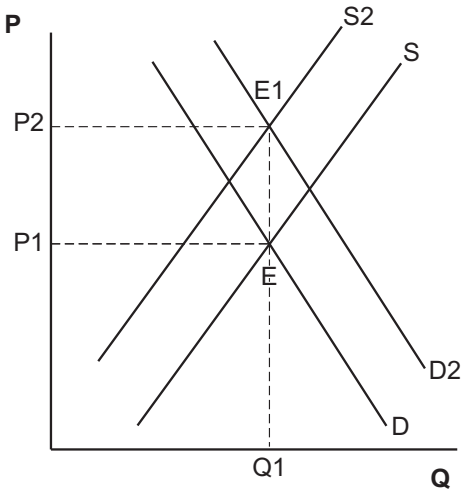
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6 Which of these is **not** an economic agent?

A Countries
B Firms
C Governments
D Households

Your answer ☐ **[1]**

7 The table shows the quantity demanded and quantity supplied of a product at different prices.

Price (£)	Quantity Demanded	Quantity Supplied
10	90	5
20	80	15
30	60	25
40	35	35
50	20	50

What is the state of the market for this product at a price of £30?

A Excess demand of 35 units
B Excess demand of 60 units
C Excess supply of 25 units
D Excess supply of 85 units

Your answer ☐ **[1]**

8 Which is **not** a reward for a factor of production?

A payment by a tenant of a house to its owner
B return received by a person on their savings account
C revenue received by a firm from its total sales
D total income earned by a self-employed person

Your answer ☐ **[1]**

9 The **best** description of a free good is

A Consumers do not have to pay for the good
B Scarce resources are not used in the production of the good
C The production of the good is fully subsidised
D The government provides the good to all consumers

Your answer ☐ **[1]**

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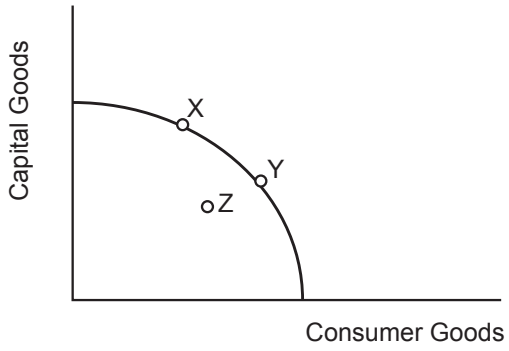
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10 A firm adopts new technology that reduces the discharge of waste into the local river. Which of the following is **most** likely to fall?

A Marginal external benefit
B Marginal external cost
C Marginal private benefit
D Marginal private cost

Your answer ☐ **[1]**

11 A country is not currently making full use of all its resources. It decides to produce more consumer goods. Which of the following movements on the diagram represents the effect of this decision?



A X to Y
B Y to Z
C Z to X
D Z to Y

Your answer ☐ **[1]**

12 A government legislates to force producers of a good to put information on the packaging about the negative consumption externalities it causes. What would be the effects on the market for this good?

	Demand curve	Supply curve	Quantity traded
A	Shift to the left	Shift to the left	Fall
B	Shift to the left	Shift to the right	Uncertain
C	Shift to the right	Shift to the left	Uncertain
D	Shift to the right	Shift to the right	Rise

Your answer ☐ **[1]**

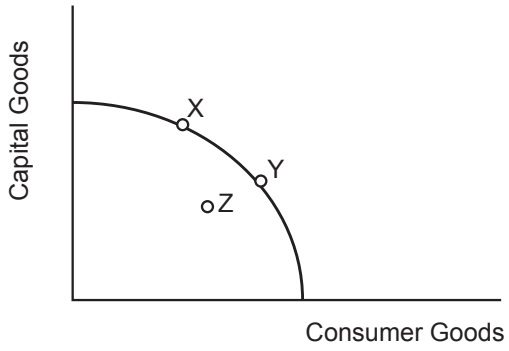
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C	Shift to the right	Shift to the left	Uncertain
D	Shift to the right	Shift to the right	Rise

Your answer ☐ **[1]**

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13 What is an inferior good?

A One that represents less value for money than a close substitute
B One where the price and quantity demanded are positively related
C One with a cross elasticity of demand of less than one
D One with a negative income elasticity of demand

Your answer ☐ **[1]**

14 Which of the following is a free good?

A Health care
B Street lighting
C Sunlight
D Three for two offers

Your answer ☐ **[1]**

15 Which of the following is a reward to a factor of production?

A Free accommodation for a school caretaker
B Loyalty cards for frequent purchases
C Money received from the sale of a house
D Pensions paid to retired employees

Your answer ☐ **[1]**

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SECTION B

Answer **all** the questions in this section.

How much does a festival cost?

The number of people attending live music festivals and 'gigs' has risen substantially in the last 10 years to 2015. Festivals across the UK have expanded and a number of new festivals, catering to a variety of different music tastes, have sprung up.

The amount people are spending on gigs and festivals has increased by 8.5% from July 2014 to £9 bn in July 2015. The average person spends more than £450 attending live music events each year, according to figures from the Association of Independent Festivals. Glastonbury, which hosted around 190 000 attendees, is the most expensive festival, with the average person spending £425 over the long weekend alone, taking into account transport, food and drink. A high proportion of this spending is accounted for by the price of a ticket.

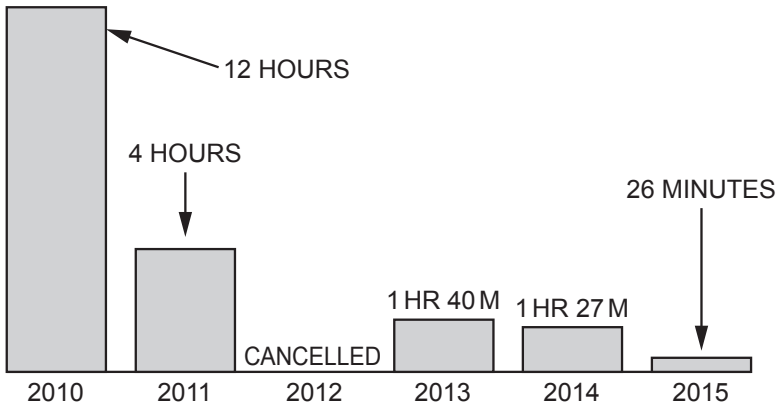
Fig. 1 The rise in the price of festival tickets (2006–2015)

	2006	2015
Latitude	£95	£192.50
V Festival	£120	£189
Glastonbury[1]	£145	£220
Reading	£135	£205
Bestival	£105	£195
Benicassim	£105	£114

[1]Price for 2007, no festival in 2006

Despite rising ticket prices, Glastonbury remains one of the most popular festivals in the UK. This is reflected in the time it takes for tickets to sell out leaving some potential purchasers disappointed.

Fig. 2 How quickly did Glastonbury tickets sell out?



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8

The price of tickets for some festivals, however, has fallen. This is largely due to an increase in the number of festivals which has forced many promoters to lower ticket prices. In some cases, this has proved a very successful strategy. Green Man Festival reduced the price of a weekend ticket from £300 to £250 and this led to 23% increase in ticket sales. Better weather and improved transport provision also helped to account for the rise in ticket sales.

However, the impact of festivals on local communities is not all positive. Litter, vandalism and anti-social behaviour increases. The additional cost of policing at Glastonbury in 2015 was estimated to be £287 000. This cost was paid by the festival organisers.

16 (a) (i) Calculate the amount spent on going to gigs and festivals in July 2014.

.....

.....

.....

..... **[2]**

(ii) Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?

.....

..... **[1]**

(b) (i) Using information in the case study, explain one reason, other than price, why there has been an increase in demand for tickets at the Green Man Festival.

.....

.....

..... **[2]**

(ii) Using Fig. 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.

.....

.....

..... **[2]**

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SECTION A

Answer **all** the questions in this section.

Write your answer for each question in the box provided.

1 Which of the following solves the problem of what to produce in a planned economy?

A Consumers' tastes and preferences
B Government directives
C Profit maximising firms
D The operation of market forces

Your answer ☐ **[1]**

2 Which of the following is a benefit of division of labour?

A Each worker is skilled in a variety of tasks
B Firms spend more on training
C Goods are all very similar
D Production costs are lower

Your answer ☐ **[1]**

3 Which of the following statements would be described as a positive statement?

A Branded goods are better than non-branded goods
B Branded goods are more expensive than non-branded goods
C Branded goods do not represent value for money
D Branded goods should be taxed at a higher rate than non-branded goods

Your answer ☐ **[1]**

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4 The table shows the market for a product which was in disequilibrium with a surplus of 36.

Price (£)	Quantity demanded (per week)	Quantity supplied (per week)
6	40	86
5	46	82
4	54	76
3	64	64
2	75	57
1	90	54

The market then moved to equilibrium. What was the change in the quantity demanded?

A – 8
B – 10
C 18
D 26

Your answer ☐ **[1]**

5

Price (£)	Quantity demanded (000s per month)	Quantity supplied (000s per month)
10	10	40
9	15	35
8	20	30
7	25	25
6	30	20
5	35	15
4	40	10

If the government imposes a tax of £2 on this good, what will the new equilibrium price be?

A £6
B £7
C £8
D £9

Your answer ☐ **[1]**

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If the government imposes a tax of £2 on this good, what will the new equilibrium price be?

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B £7
C £8
D £9

Your answer ☐ **[1]**

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6 The price of a product was initially £60. A rise in price caused the quantity supplied to change from 200 to 260. If Price Elasticity of Supply (PES) is 2.0, what was the change in price?

A £2
B £9
C £15
D £18

Your answer ☐ **[1]**

7 The table shows the quantity traded of a product at different prices.

Price (£)	Quantity traded (per day)
30	70
40	60
50	50
60	40

At which price would total revenue be at its highest?

A £30
B £40
C £50
D £60

Your answer ☐ **[1]**

8 Which of the following is an external benefit?

A A firm's transport costs increase due to higher congestion levels on roads
B A larger crop of soft fruit for farmers because of global warming
C Hotel profits rise as a result of greater internal economies of scale
D Workers' wages increase as their productivity rises

Your answer ☐ **[1]**

9 In a free market economy what is the function of the price mechanism?

A To allocate resources
B To avoid government failure
C To create price stability
D To reduce competition

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2-MARK QUESTIONS

17 questions in this booklet

8

SECTION B

Answer **all** the questions in this section.

Trends in UK Road Passenger Transport

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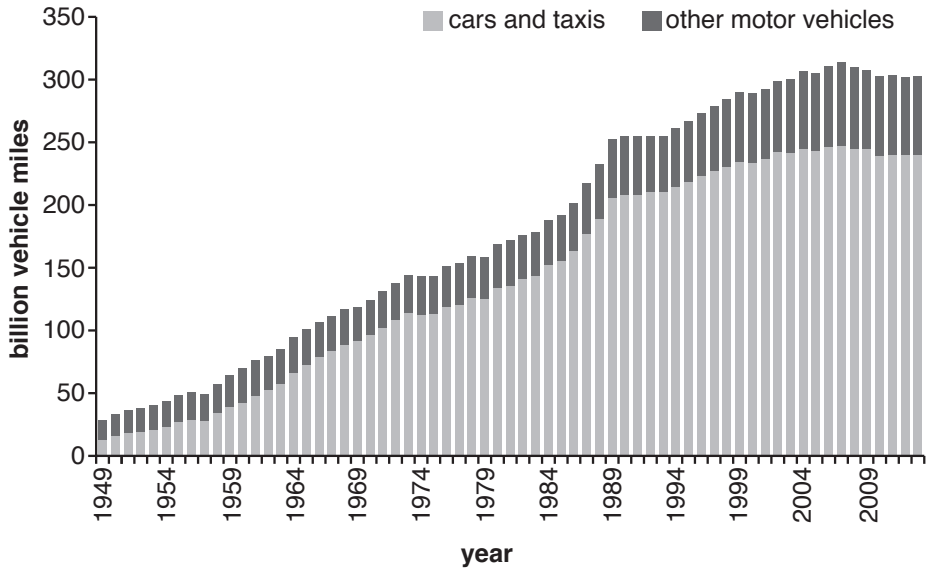


Fig. 1 Road Traffic in Britain since 1949

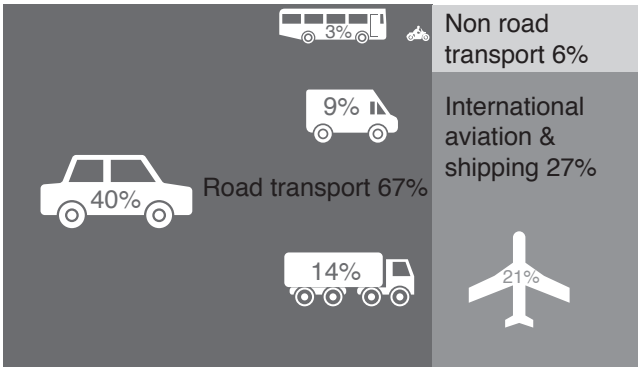
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..... **[2]**

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.....

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SECTION B

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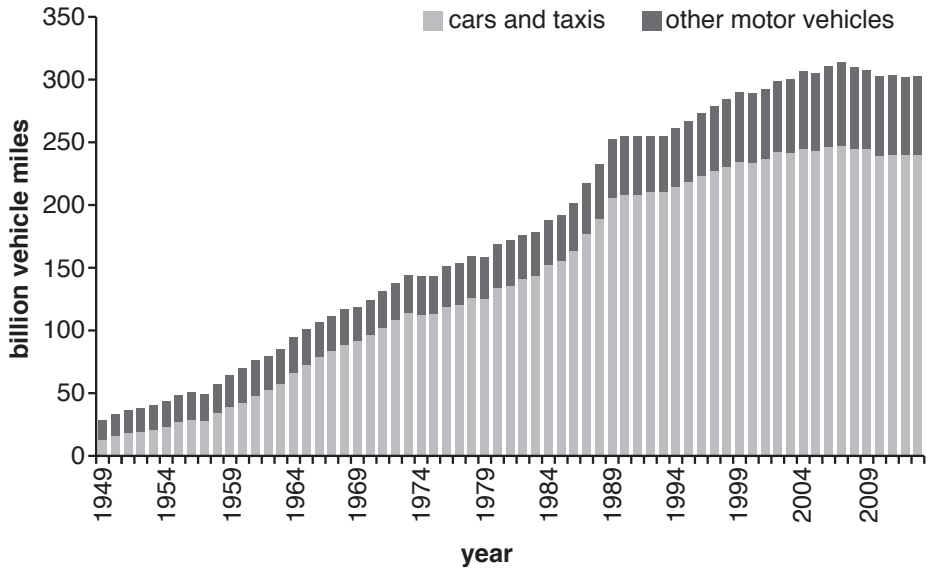


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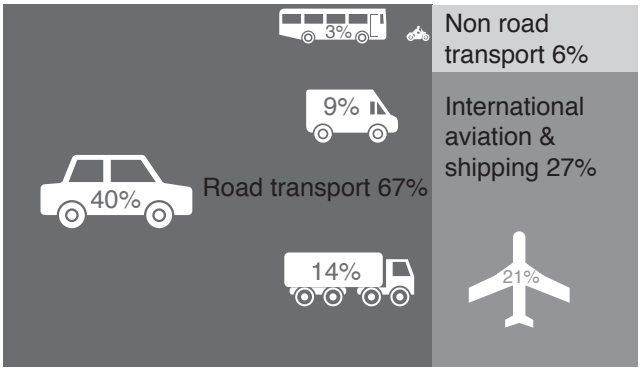
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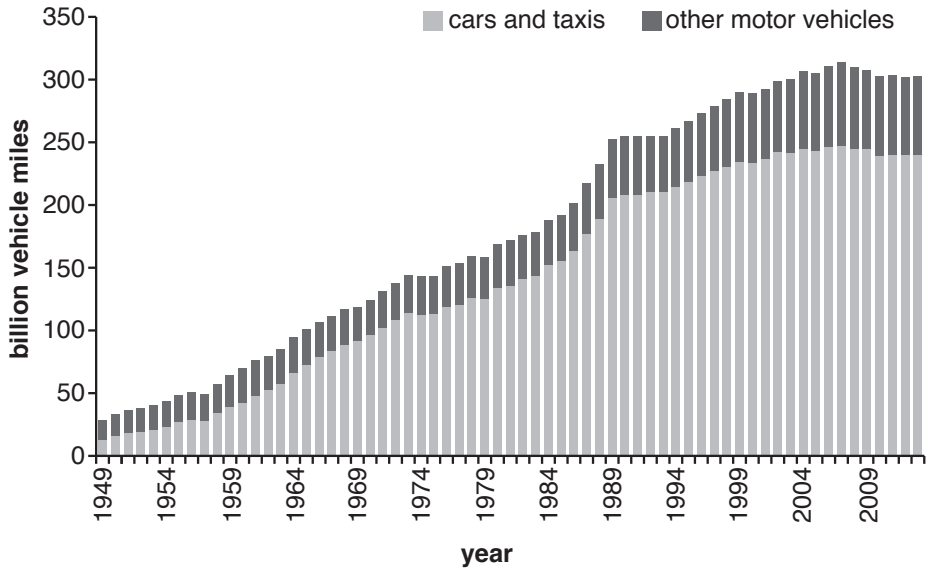


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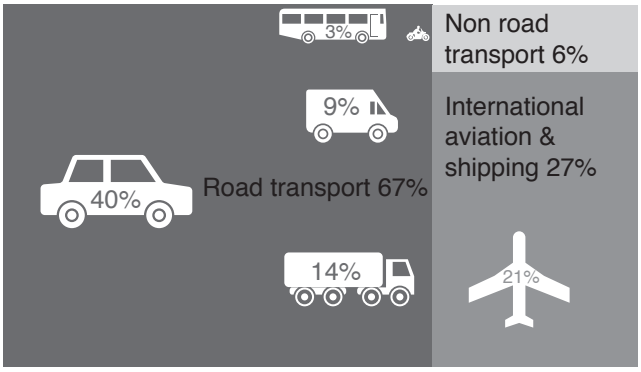
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Avocados are an agricultural fruit crop grown in Africa, Asia and North and South America. Mexico is the largest supplier. The countries listed below accounted for 85% of total world supply in 2014.

Top 10 Avocado Producing Countries		
Rank	Country	Production in tonnes, 2014
1	Mexico	1520695
2	Dominican Republic	428301
3	Peru	349317
4	Indonesia	307326
5	Colombia	288739
6	Kenya	218692
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8	Rwanda	161519
9	Chile	160000
10	Brazil	156699

Fig. 1 World avocado production. 2014 = 4 335 974 tonnes

Whilst the world price of many foods has had large price fluctuations, this has not been true in the case of the avocado. Demand has continued to exceed supply in the global market. This has meant that the price of the avocado between 1996 and 2017, overall, has risen in the UK.

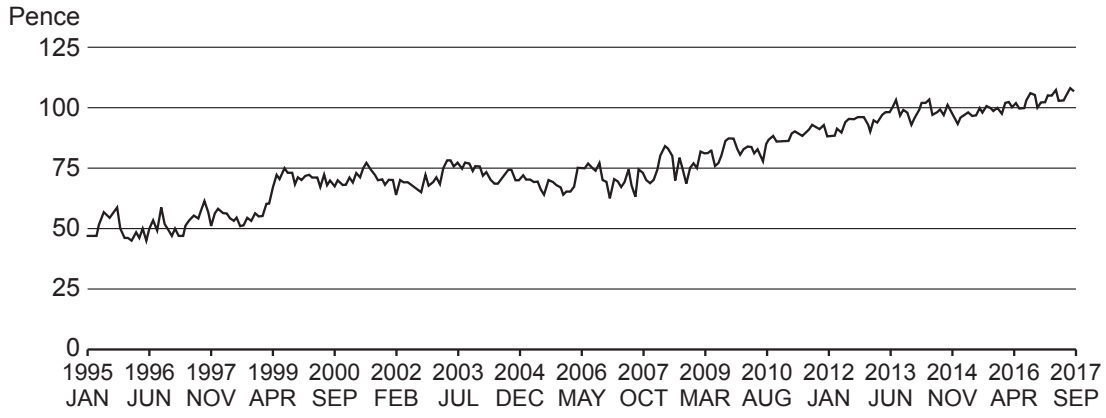


Fig. 2 UK price of avocados

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In the UK twenty years ago, avocados were seen as a luxury food bought by higher income households, but today this has changed. Whilst GDP increased from £1694 m in 2012 to £2041 m in 2017, sales of avocados increased by 184%.

Two reasons for the increased worldwide sales have been: claims, supported by celebrity endorsements, that avocados have health benefits, such as lowering cholesterol; and the rise in the standard of living in countries such as China and India.

However, the US government is concerned about the effect of imported avocados on domestic growers. It is considering, therefore, imposing a tax on imports of the fruit to protect US farmers' income.

16 (a) What is meant by 'demand'?

.....

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(b) (i) Calculate the percentage of world output supplied by Mexico in 2014.

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..... **[4]**

(ii) Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.

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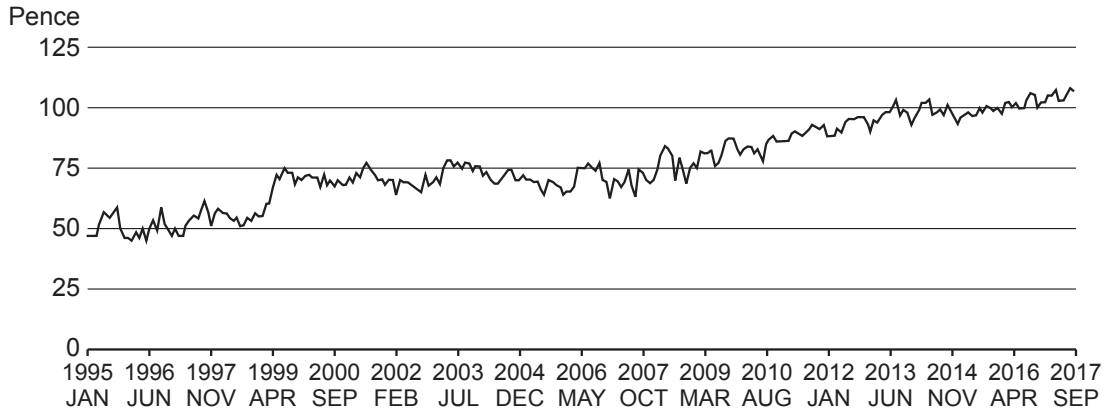


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..... **[2]**

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(c) Using an appropriate diagram(s), show how consumer surplus would be affected by the imposition of a tax on avocados.

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..... **[4]**

(d) Using information from the case study, state and explain **one** factor that has increased world demand for avocados.

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..... **[2]**

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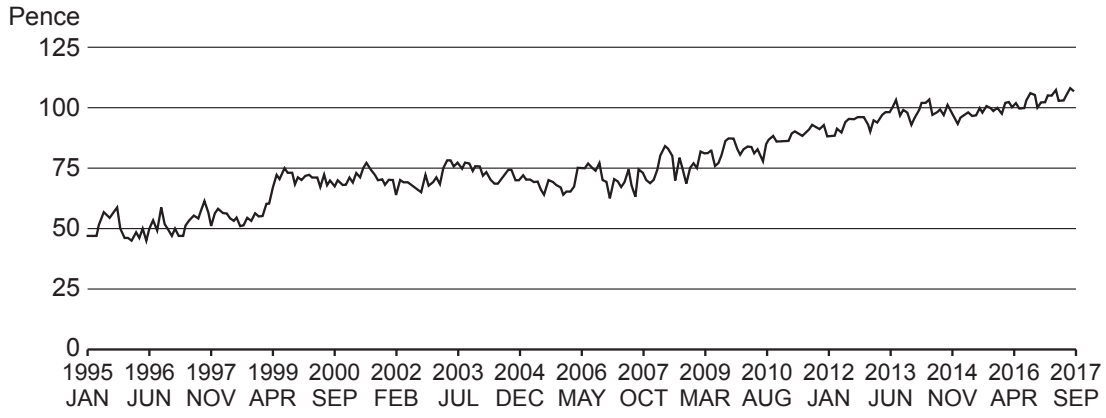


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..... **[2]**

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(e) (i) What is meant by 'income elasticity of demand'?

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..... **[2]**

(ii) Evaluate, using an appropriate calculation, the significance of income elasticity of demand for avocados from 2012 to 2017. **[10]**

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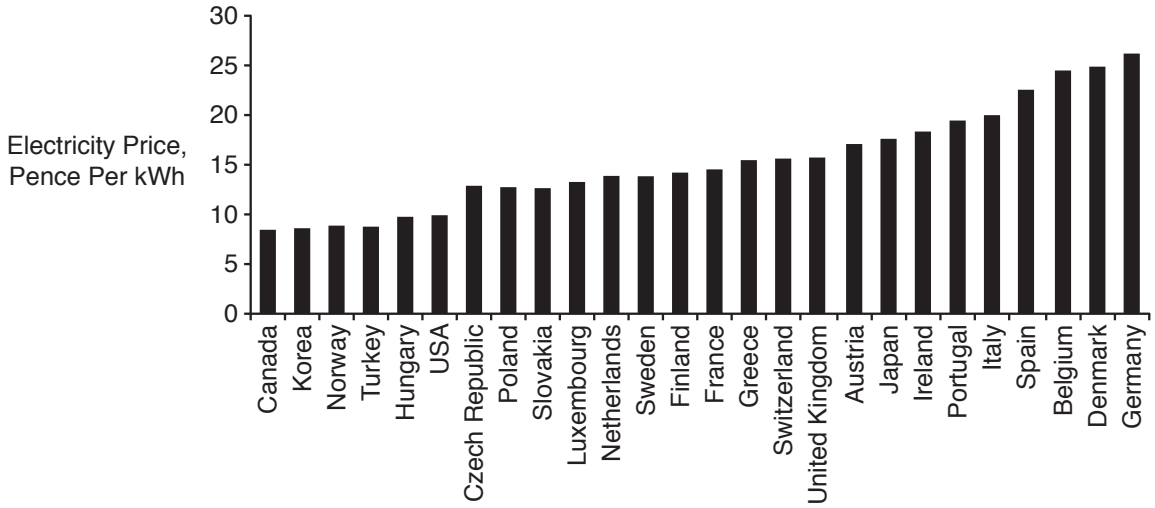


Fig. 2: Domestic electricity price in developed nations in pence per kilowatt hour (kWh) 2017

16 (a) Using **Fig. 1**, calculate how much more of the poorest households' income was spent on energy compared to the richest households in 2016.

.....

.....

..... **[1]**

(b) (i) Using **Fig. 2**, if the UK Government introduces a tax so that there is a 50% increase in the total electricity price in 2018 compared to 2017, what would the price be per kilowatt hour (kWh) in the UK?

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..... **[2]**

(ii) State what impact the increase in electricity price would have on consumer surplus.

.....

..... **[1]**

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SECTION B

Answer **all** the questions in this section.

UK Energy Market

Scientists predict that if global warming continues, it is likely to have a devastating effect on the planet. This view has forced governments, including the UK's, to agree policies to limit global warming. These policies aim to reduce the use of energy sources which produce greenhouse gases and encourage greener energies.

UK electricity bills have risen by 75% since 2004, despite a fall in demand of roughly 10%. One of the reasons for these rises is that the government has increased indirect taxes on electricity consumption in order to subsidise renewable sources and to encourage energy efficiency. The cost of clean energy subsidies added to consumer bills has almost tripled in the last five years, and is set to increase further. Critics argue the costs of subsidies should be met by direct taxation. This would help, also, to protect the poor from price rises. A price cap has been introduced by Ofgem, the energy markets regulator which benefits 15 million energy users.

Shale gas extraction has increased in a number of countries, including the USA, in recent years. This involves drilling through rocks, which can lead to shale gas leaking into surrounding groundwater and cause air pollution and noise disturbance. Extraction is often conducted near built-up areas and can cause earth tremors. In November 2019, the government suspended shale gas extraction, due to fears about earthquakes it had been causing in Lancashire.

New offshore wind power projects have been announced in the UK to be delivered by 2025. These will power more than seven million homes at a lower-than-expected cost as the cost of offshore wind has fallen by about 30% in the last two years. The government says the wind farms represent a breakthrough, typically generating greener electricity without subsidy. The cheapest operator will provide power for as low as £40 per megawatt hour. By comparison, power from Hinkley Point C – the new nuclear power station in Somerset, also due to open in 2025, which has been heavily subsidised is expected to cost £92.50 per megawatt hour. The government expects the overall wholesale electricity price will range between £48.95 in 2023–25 to £52.36 per megawatt hour in 2026–27.

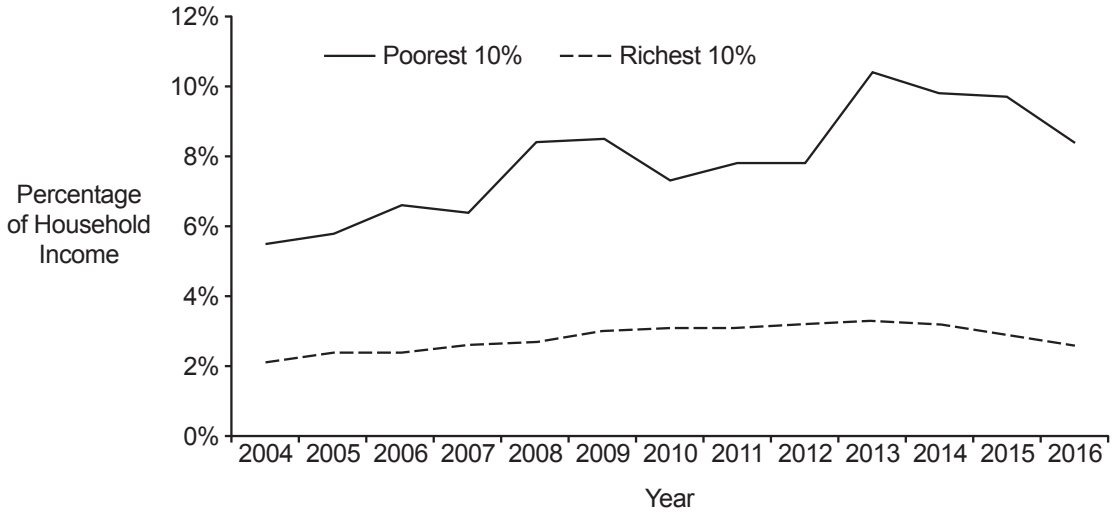


Fig. 1: Percentage of household income spent on energy for the richest and poorest 10% of the UK population

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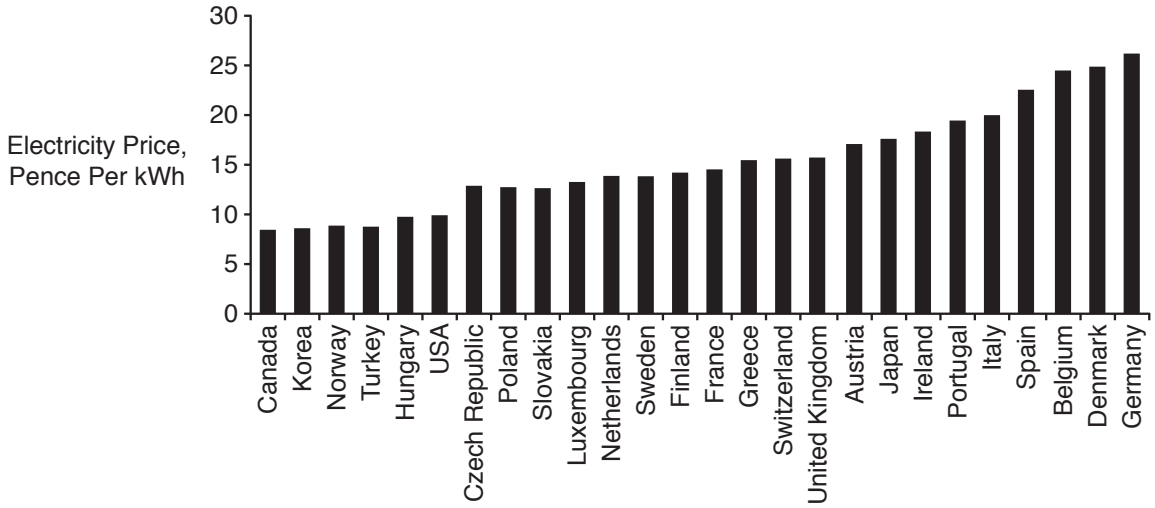


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..... **[2]**

(ii) State what impact the increase in electricity price would have on consumer surplus.

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..... **[1]**

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(iii) Explain why money is used as a medium of exchange to pay for electricity.

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..... **[2]**

(c) Using a diagram, explain the costs experienced by the residents of Lancashire due to the extraction of shale gas.

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..... **[4]**

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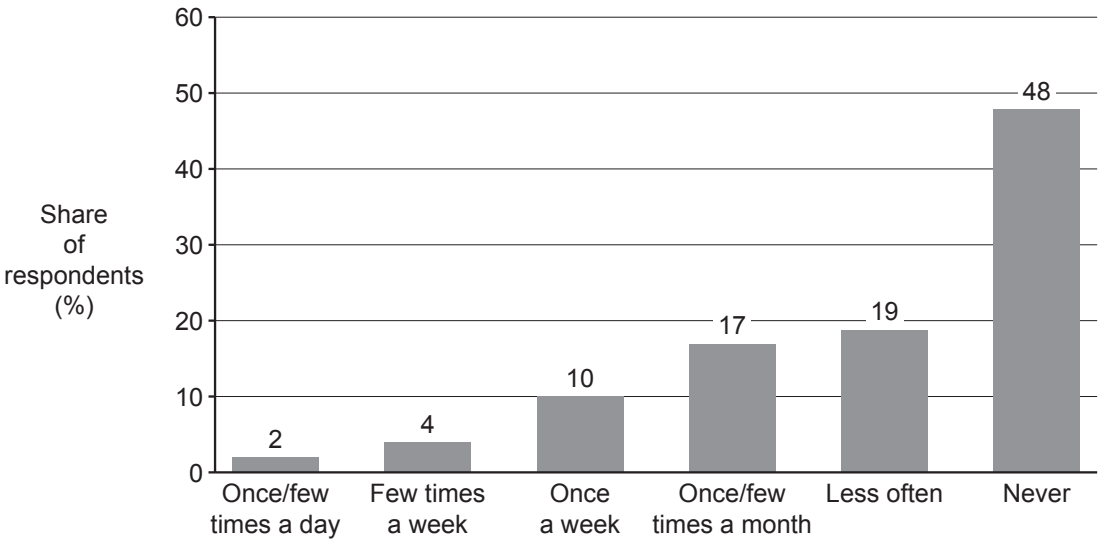
Flour Mills Worked Round The Clock To Meet Demand



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Fig. 1
Frequency of baking at home from scratch 2017



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16 **(a)** Using **Fig. 1**, state what percentage of people baked at home from scratch once a week or more often in 2017.

.....

..... **[1]**

(b) **(i)** Using the information in the case study, explain why there was an increase in demand for flour.

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..... **[2]**

(ii) Explain what the price elasticity of supply is likely to be for flour.

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(iii) Using the information in the case study, explain what impact the change in demand for yeast would have had on Red Star Yeast's producer surplus.

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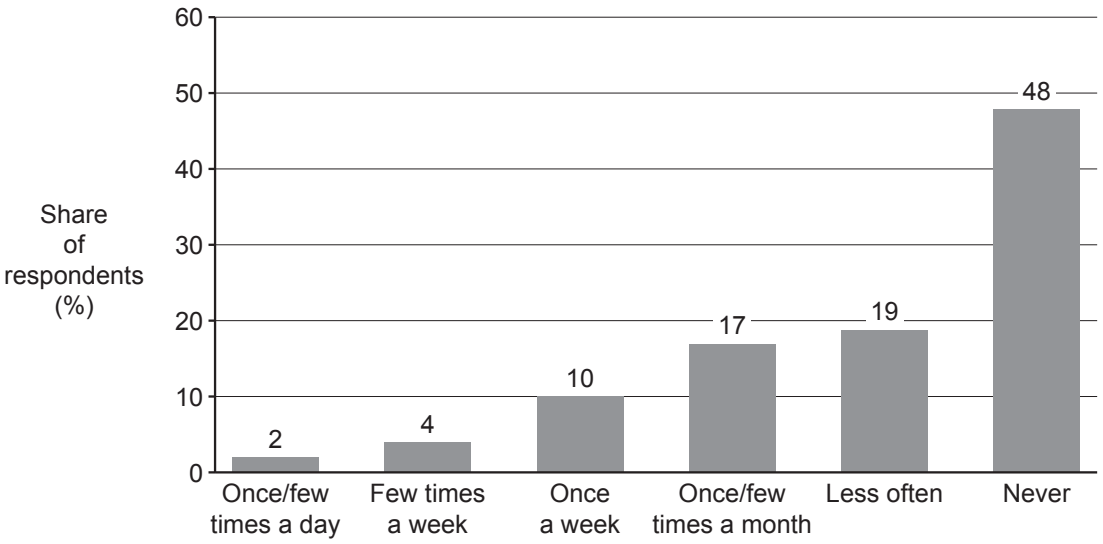
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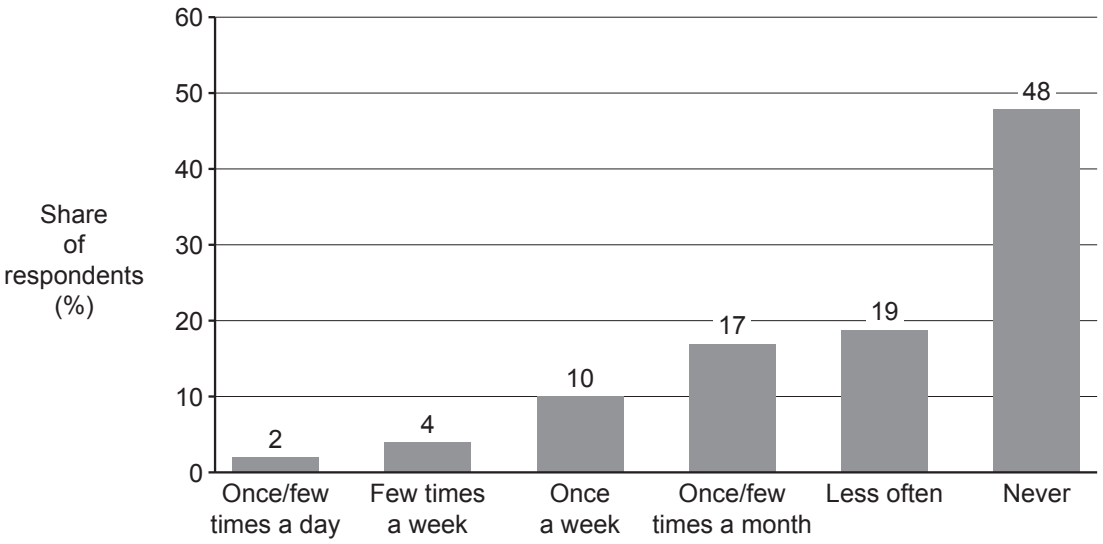
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SECTION B

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Reasons people give for eating less or no meat

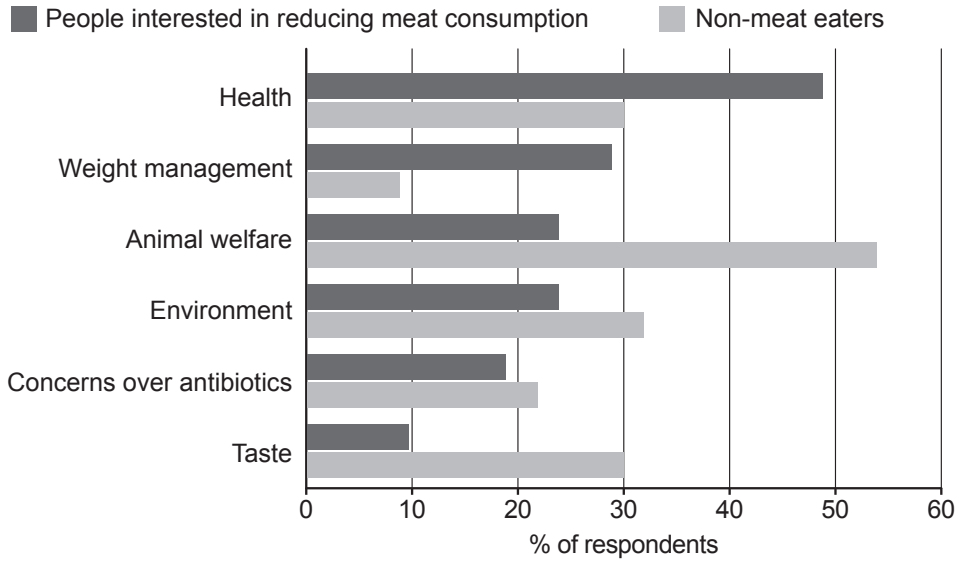
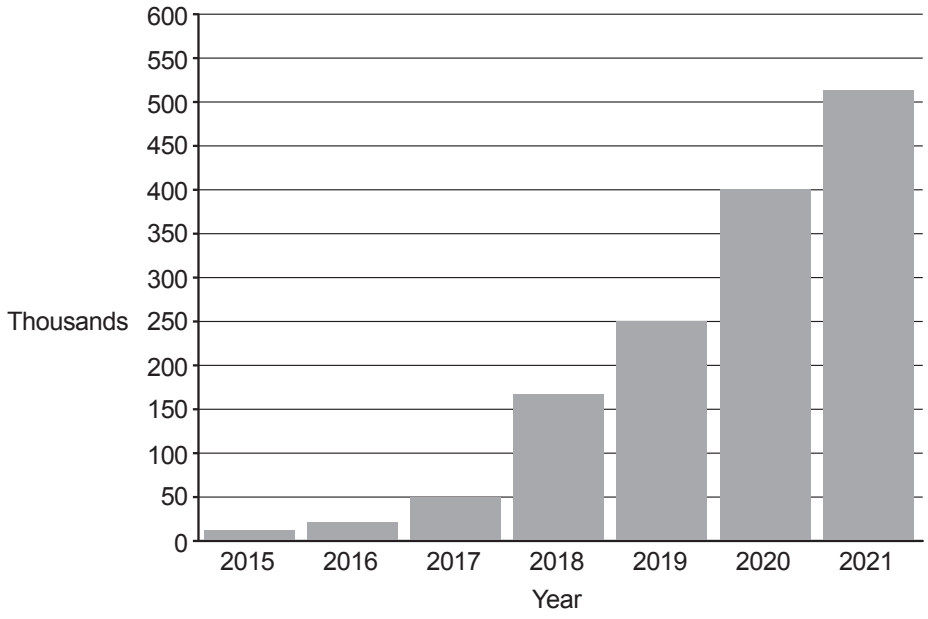


Fig. 2

Number of people signing up to Veganuary



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Turn over

16

(a) Using **Fig. 1**, state what percentage of non-meat eaters thought it was better for their health not to eat meat.

.....

..... **[1]**

(b)

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..... **[2]**

(c) Using a diagram, explain how supermarkets may respond to the popularity of Veganuary.

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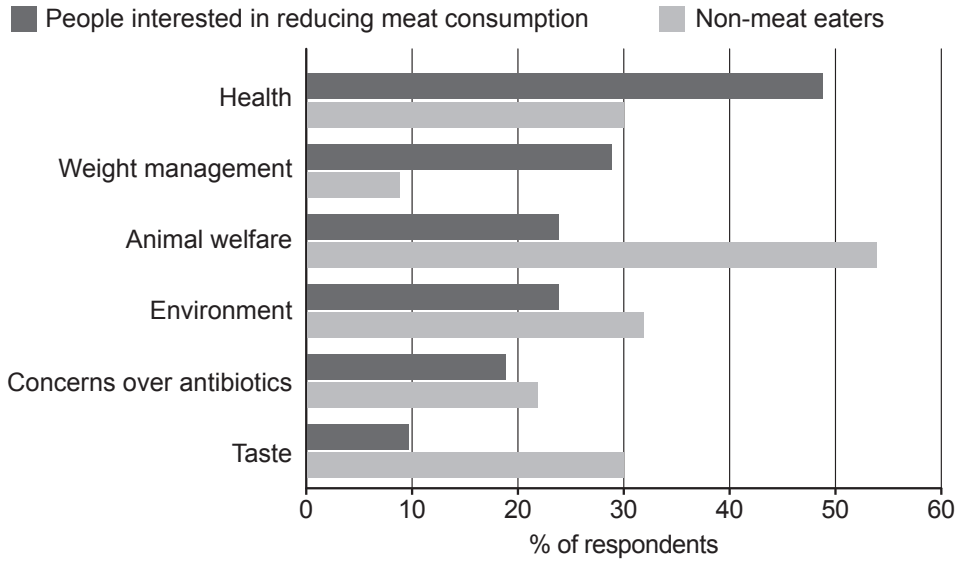
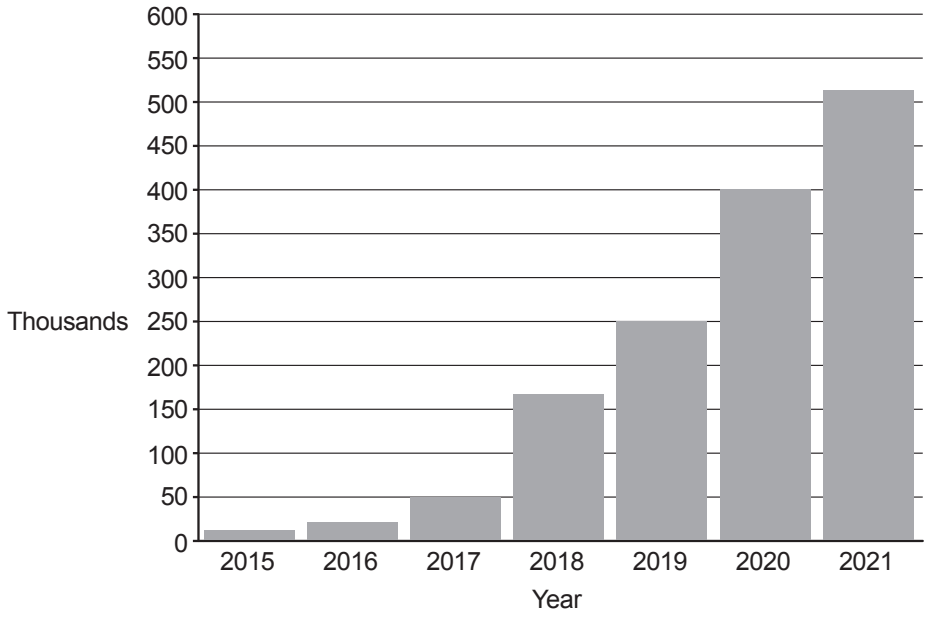


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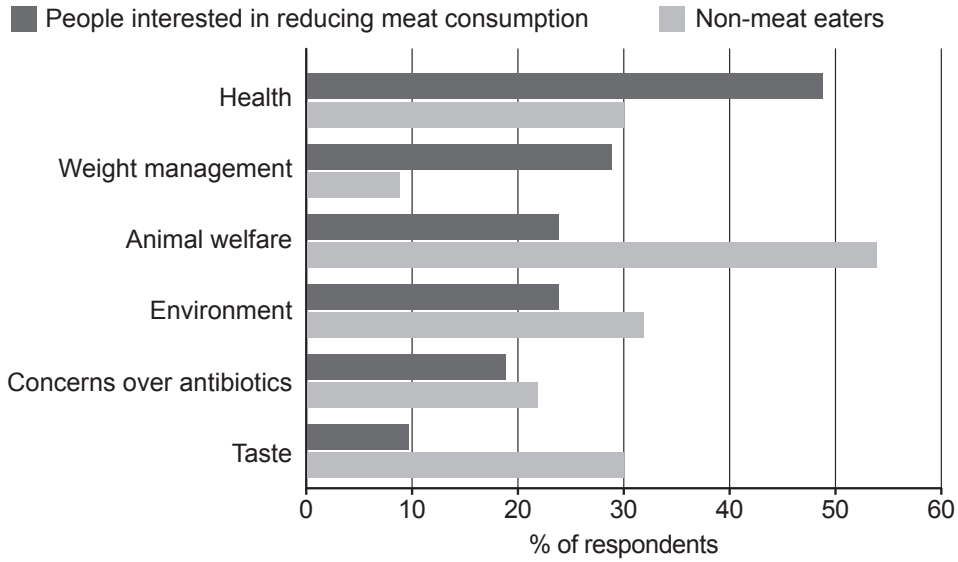
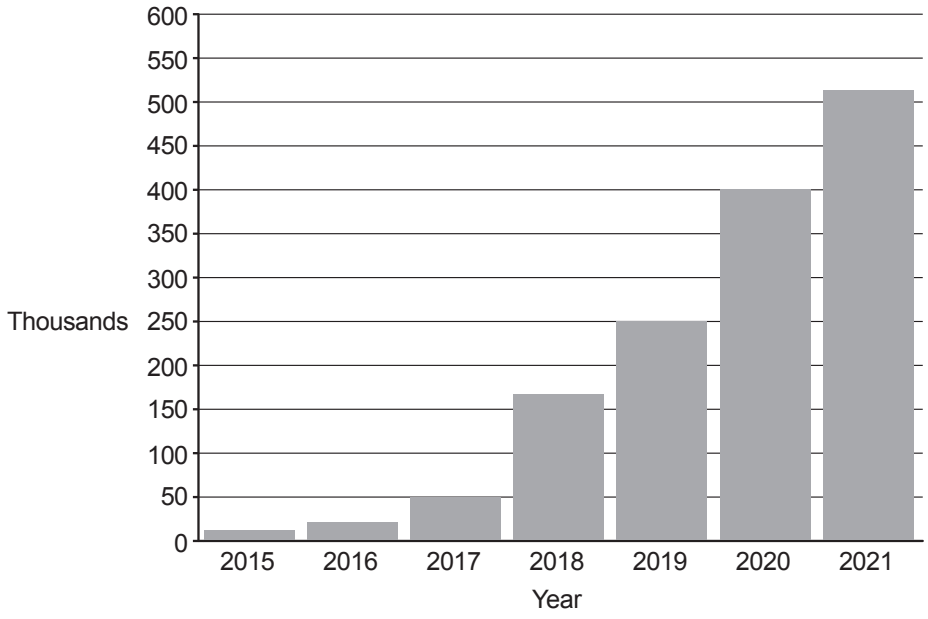


Fig. 2

Number of people signing up to Veganuary



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Turn over

(d)

(i) Using the value of cross elasticity of demand **(lines 20–21)**, explain the relationship between oat milk and dairy milk.

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..... **[2]**

(ii) Explain how the change in demand for oat milk will affect the producer surplus of oat farmers.

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SECTION B

Answer **all** the questions in this section.

How much does a festival cost?

The number of people attending live music festivals and 'gigs' has risen substantially in the last 10 years to 2015. Festivals across the UK have expanded and a number of new festivals, catering to a variety of different music tastes, have sprung up.

The amount people are spending on gigs and festivals has increased by 8.5% from July 2014 to £9 bn in July 2015. The average person spends more than £450 attending live music events each year, according to figures from the Association of Independent Festivals. Glastonbury, which hosted around 190 000 attendees, is the most expensive festival, with the average person spending £425 over the long weekend alone, taking into account transport, food and drink. A high proportion of this spending is accounted for by the price of a ticket.

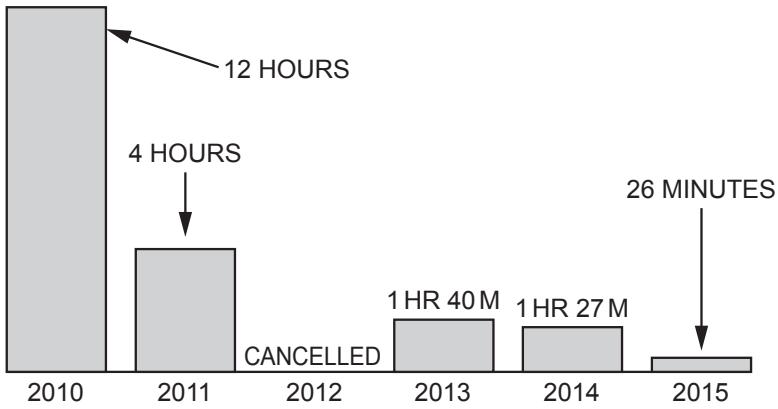
Fig. 1 The rise in the price of festival tickets (2006–2015)

	2006	2015
Latitude	£95	£192.50
V Festival	£120	£189
Glastonbury[1]	£145	£220
Reading	£135	£205
Bestival	£105	£195
Benicassim	£105	£114

[1]Price for 2007, no festival in 2006

Despite rising ticket prices, Glastonbury remains one of the most popular festivals in the UK. This is reflected in the time it takes for tickets to sell out leaving some potential purchasers disappointed.

Fig. 2 How quickly did Glastonbury tickets sell out?



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The price of tickets for some festivals, however, has fallen. This is largely due to an increase in the number of festivals which has forced many promoters to lower ticket prices. In some cases, this has proved a very successful strategy. Green Man Festival reduced the price of a weekend ticket from £300 to £250 and this led to 23% increase in ticket sales. Better weather and improved transport provision also helped to account for the rise in ticket sales.

However, the impact of festivals on local communities is not all positive. Litter, vandalism and anti-social behaviour increases. The additional cost of policing at Glastonbury in 2015 was estimated to be £287 000. This cost was paid by the festival organisers.

16 (a) (i) Calculate the amount spent on going to gigs and festivals in July 2014.

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..... **[2]**

(ii) Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?

.....

..... **[1]**

(b) (i) Using information in the case study, explain one reason, other than price, why there has been an increase in demand for tickets at the Green Man Festival.

.....

.....

..... **[2]**

(ii) Using Fig. 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.

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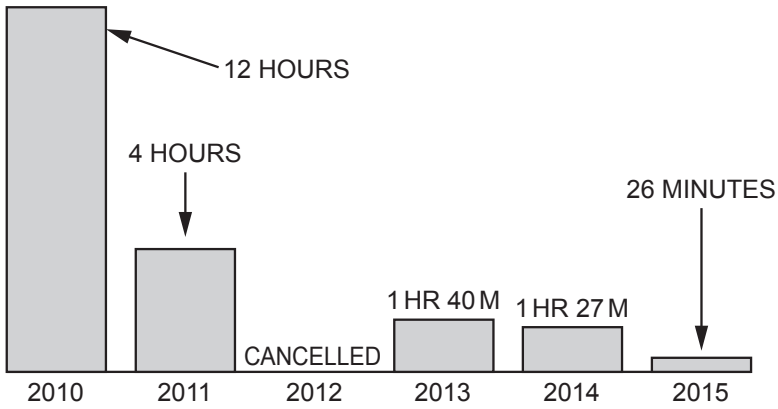
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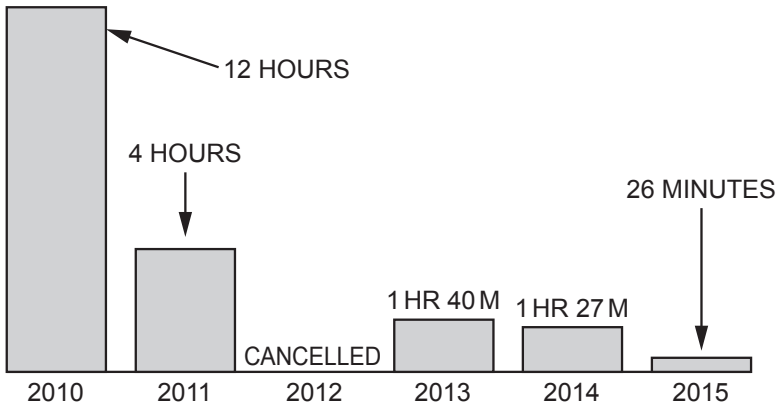
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3-MARK QUESTIONS

1 question in this booklet

SECTION B

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A Defence Controversy

The UK budget deficit grew rapidly after the 2009 recession. In order to reduce the size of the budget deficit, the UK government has been trying to reduce its spending. This policy has included reduced spending on healthcare and education. However, the government has been reluctant to reduce spending on defence.

Many economists argue that defence needs to be provided by the state since it is a public good which, if left to the free market, would not be produced. A controversial aspect of the government's plans is spending on defence. In particular, whether or not to replace Britain's four existing Trident nuclear missile submarines with four new ones.

The Ministry of Defence has said it will cost £41 bn to build the replacement system. Total (central) government spending in 2016 was £588.8 billion. (Fig. 1 shows the breakdown of this spending.) Those in favour of a nuclear deterrent argue that it is an essential part of Britain's defence strategy. The Prime Minister argued it would be "sheer madness" to give up the UK's nuclear weapons, because of the threat posed by other countries with a nuclear defence capability.

Opponents argue that the cost is too high and that the money would be better allocated to healthcare or education. One estimate suggests that the cost of Trident over 30 years will be £200 bn and this would be enough to fully fund hospital accident and emergency services for 50 years, employ 200 000 new nurses, build 40 000 new primary schools, or cover tuition fees for 5 million students.

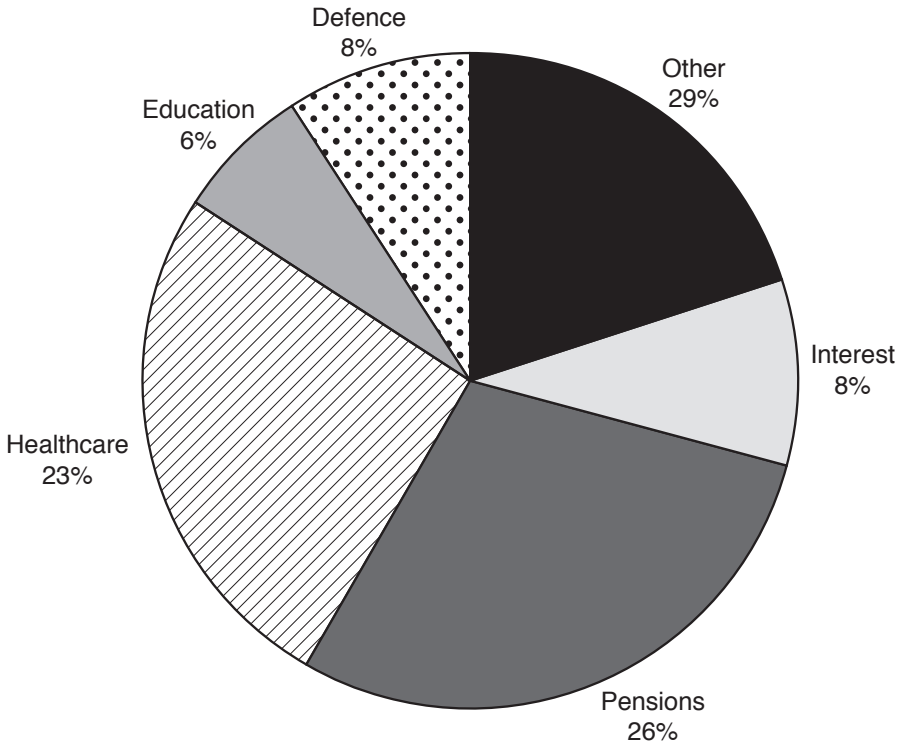


Fig. 1 UK Government spending by area in 2016

© OCR 2018

16 **(a)** State one factor of production that might be used in the production of submarines.

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..... **[1]**

(b) State and explain two factors that might lead to an increase in the cost of replacing Trident.

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(c) Using defence as an example, explain two characteristics of a public good.

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(d) Using the concept of scarcity and the information in Fig. 1, explain the effect of increased government spending on defence.

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(e) Using information in the case study, calculate, in pounds, how much more the UK government spent on healthcare and education than on defence in 2016.

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..... **[3]**

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4-MARK QUESTIONS

13 questions in this booklet

8

SECTION B

Answer **all** the questions in this section.

Trends in UK Road Passenger Transport

The demand for the vast majority of road transport is a derived demand. Since 1950, road traffic in the UK has increased almost tenfold up to 303.7 billion vehicle miles in 2013. The increase has mainly been accounted for by an increase in the number of cars and vans. This has brought with it a number of problems including increased congestion, air and noise pollution. However, more recently, the growth in road use has slowed and since 2008 there has been a slight decrease. Population has increased from 50 million in 1950 to 64 million in 2013 and GDP has increased from £0.29 trillion in 1949 to £1.50 trillion in 2012. However, since 2009 the price of unleaded petrol has increased from 86.3 pence per litre to 130.8 pence per litre in December 2013.

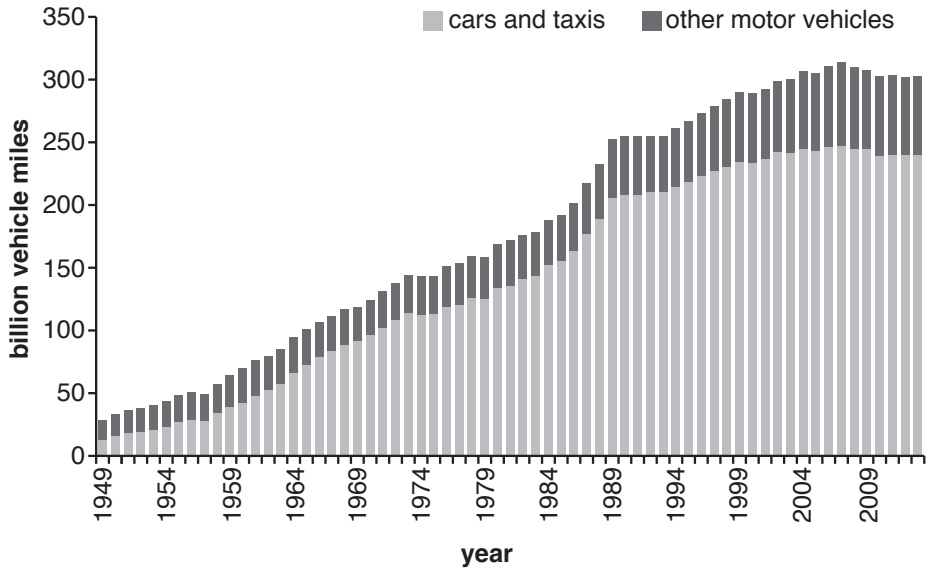


Fig. 1 Road Traffic in Britain since 1949

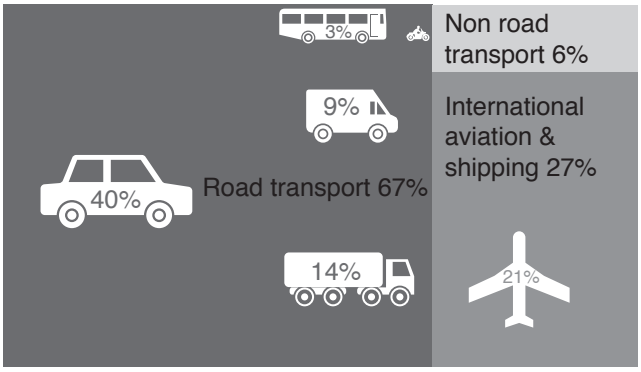
There was a slight decline in bus usage (outside London) from 1985–2008. In 2012 estimates for the income elasticity of demand for buses suggest an income elasticity of demand between –0.5 and –1.0. Price elasticity of demand for buses is –0.36 in the short run and –0.7 in the long run. Cross elasticity for buses is estimated to be even lower, with the cross elasticity of demand between bus fares and car travel just –0.1.

Bus fares have increased in real terms since 1986 but bus travel for older and disabled people has been free in England since April 2008. The Transport Act 2000 required all local authorities to provide low price travel for older and disabled people. From April 2008 this was extended to free travel by bus anywhere in England.

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9

In the year ending 2014, the average level of subsidy for buses per passenger journey was 6.3 pence. This decreased (adjusted for inflation) from 10.5 pence in 2005. The subsidy in London is 1.8 pence per passenger journey.



- In 2011, road transport was the largest contributor to total transport greenhouse gas emissions (67% of the total).
- Cars and taxis contributed the most of any transport mode (40% of total).

*Non road transport consists mainly of domestic aviation and shipping and rail.

Fig. 2 UK Transport: Greenhouse gases (GHG) emissions by mode of transport 2011

There has also been growing concern about the contribution of road transport to rising emissions, air pollution and global warming.

The London Lorry Control Scheme (LLCS) has been in existence since 1986. It was set up to protect Londoners against the disturbance caused by heavy lorries at night and at weekends. Its objective is to reduce noise nuisance at antisocial times by eliminating through traffic and minimising the environmental effects of heavy lorries. Lorries are banned (or prohibited) from using urban roads during the most environmentally sensitive times, from 9pm–7am Monday–Saturday, and from 1pm Saturday to 7am Monday.

© OCR 2017

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(e) Explain using an appropriate diagram(s), the likely effect of an increase in population on the market for bus travel.

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Turn over

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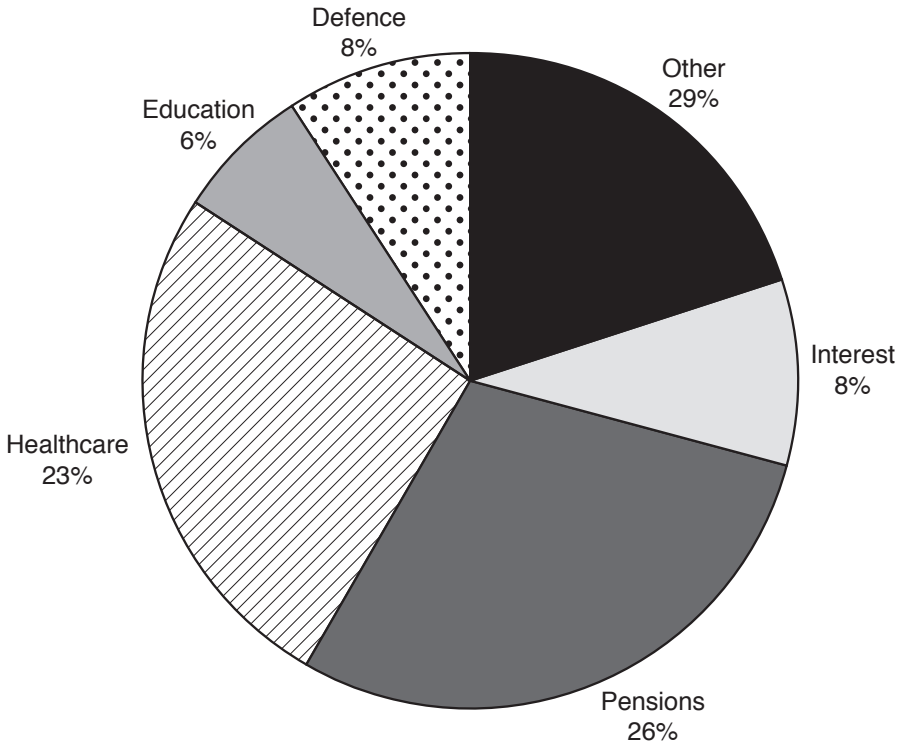


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The Ministry of Defence has said it will cost £41 bn to build the replacement system. Total (central) government spending in 2016 was £588.8 billion. (Fig. 1 shows the breakdown of this spending.) Those in favour of a nuclear deterrent argue that it is an essential part of Britain's defence strategy. The Prime Minister argued it would be "sheer madness" to give up the UK's nuclear weapons, because of the threat posed by other countries with a nuclear defence capability.

Opponents argue that the cost is too high and that the money would be better allocated to healthcare or education. One estimate suggests that the cost of Trident over 30 years will be £200 bn and this would be enough to fully fund hospital accident and emergency services for 50 years, employ 200 000 new nurses, build 40 000 new primary schools, or cover tuition fees for 5 million students.

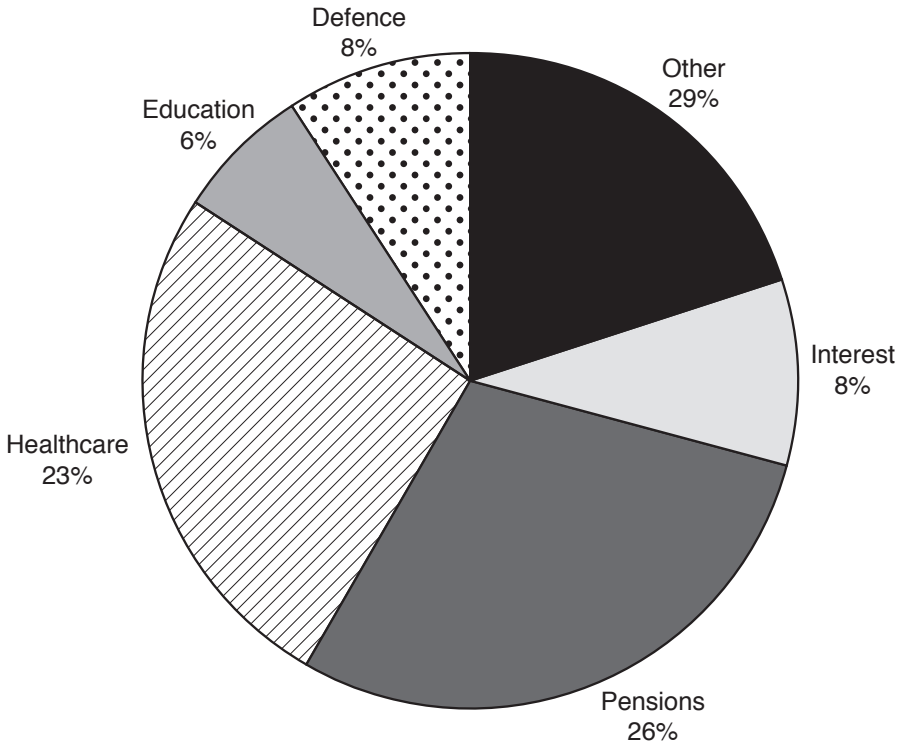


Fig. 1 UK Government spending by area in 2016

© OCR 2018

16 **(a)** State one factor of production that might be used in the production of submarines.

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..... **[1]**

(b) State and explain two factors that might lead to an increase in the cost of replacing Trident.

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(c) Using defence as an example, explain two characteristics of a public good.

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(d) Using the concept of scarcity and the information in Fig. 1, explain the effect of increased government spending on defence.

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(e) Using information in the case study, calculate, in pounds, how much more the UK government spent on healthcare and education than on defence in 2016.

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SECTION B

Answer **all** the questions in this section.

Avocados are an agricultural fruit crop grown in Africa, Asia and North and South America. Mexico is the largest supplier. The countries listed below accounted for 85% of total world supply in 2014.

Top 10 Avocado Producing Countries		
Rank	Country	Production in tonnes, 2014
1	Mexico	1520695
2	Dominican Republic	428301
3	Peru	349317
4	Indonesia	307326
5	Colombia	288739
6	Kenya	218692
7	United States of America	179124
8	Rwanda	161519
9	Chile	160000
10	Brazil	156699

Fig. 1 World avocado production. 2014 = 4 335 974 tonnes

Whilst the world price of many foods has had large price fluctuations, this has not been true in the case of the avocado. Demand has continued to exceed supply in the global market. This has meant that the price of the avocado between 1996 and 2017, overall, has risen in the UK.

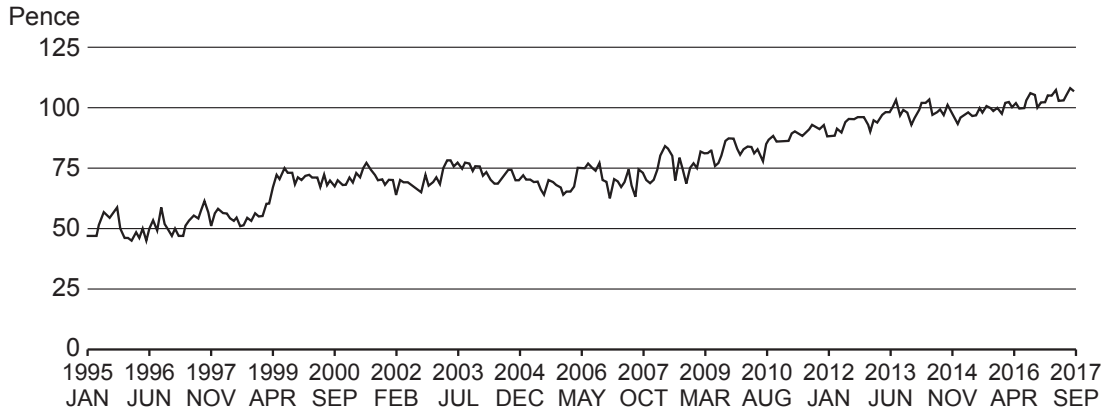


Fig. 2 UK price of avocados

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In the UK twenty years ago, avocados were seen as a luxury food bought by higher income households, but today this has changed. Whilst GDP increased from £1694 m in 2012 to £2041 m in 2017, sales of avocados increased by 184%.

Two reasons for the increased worldwide sales have been: claims, supported by celebrity endorsements, that avocados have health benefits, such as lowering cholesterol; and the rise in the standard of living in countries such as China and India.

However, the US government is concerned about the effect of imported avocados on domestic growers. It is considering, therefore, imposing a tax on imports of the fruit to protect US farmers' income.

16 (a) What is meant by 'demand'?

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..... **[1]**

(b) (i) Calculate the percentage of world output supplied by Mexico in 2014.

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..... **[4]**

(ii) Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.

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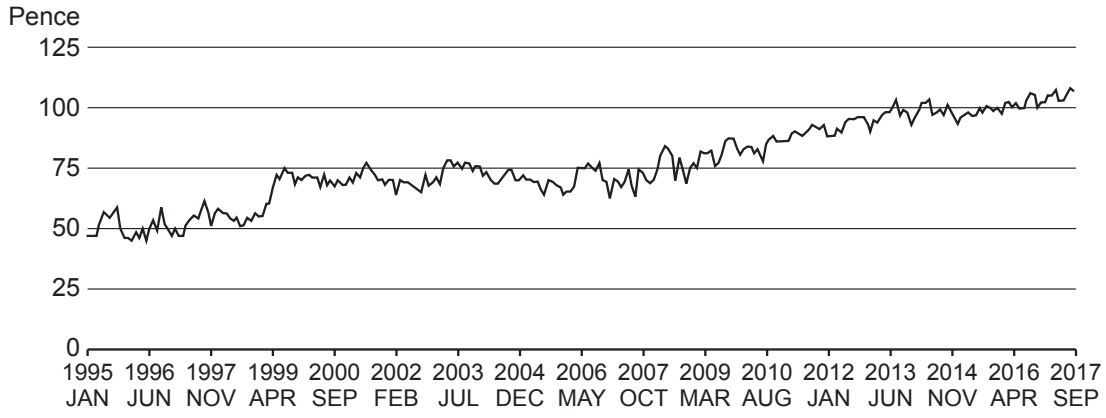


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(ii) Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.

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(c) Using an appropriate diagram(s), show how consumer surplus would be affected by the imposition of a tax on avocados.

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(d) Using information from the case study, state and explain **one** factor that has increased world demand for avocados.

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..... **[2]**

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SECTION B

Answer **all** the questions in this section.

UK Energy Market

Scientists predict that if global warming continues, it is likely to have a devastating effect on the planet. This view has forced governments, including the UK's, to agree policies to limit global warming. These policies aim to reduce the use of energy sources which produce greenhouse gases and encourage greener energies.

UK electricity bills have risen by 75% since 2004, despite a fall in demand of roughly 10%. One of the reasons for these rises is that the government has increased indirect taxes on electricity consumption in order to subsidise renewable sources and to encourage energy efficiency. The cost of clean energy subsidies added to consumer bills has almost tripled in the last five years, and is set to increase further. Critics argue the costs of subsidies should be met by direct taxation. This would help, also, to protect the poor from price rises. A price cap has been introduced by Ofgem, the energy markets regulator which benefits 15 million energy users.

Shale gas extraction has increased in a number of countries, including the USA, in recent years. This involves drilling through rocks, which can lead to shale gas leaking into surrounding groundwater and cause air pollution and noise disturbance. Extraction is often conducted near built-up areas and can cause earth tremors. In November 2019, the government suspended shale gas extraction, due to fears about earthquakes it had been causing in Lancashire.

New offshore wind power projects have been announced in the UK to be delivered by 2025. These will power more than seven million homes at a lower-than-expected cost as the cost of offshore wind has fallen by about 30% in the last two years. The government says the wind farms represent a breakthrough, typically generating greener electricity without subsidy. The cheapest operator will provide power for as low as £40 per megawatt hour. By comparison, power from Hinkley Point C – the new nuclear power station in Somerset, also due to open in 2025, which has been heavily subsidised is expected to cost £92.50 per megawatt hour. The government expects the overall wholesale electricity price will range between £48.95 in 2023–25 to £52.36 per megawatt hour in 2026–27.

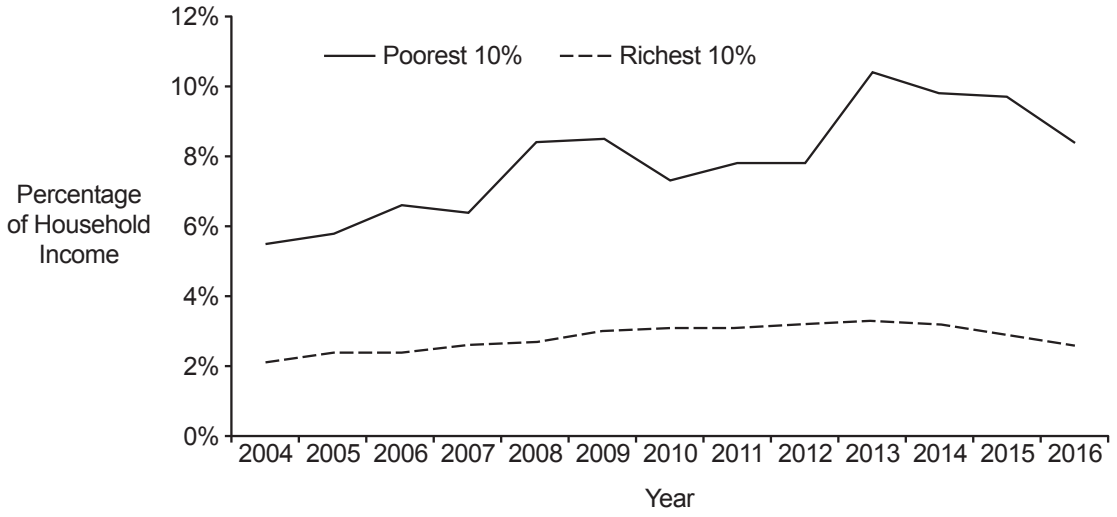


Fig. 1: Percentage of household income spent on energy for the richest and poorest 10% of the UK population

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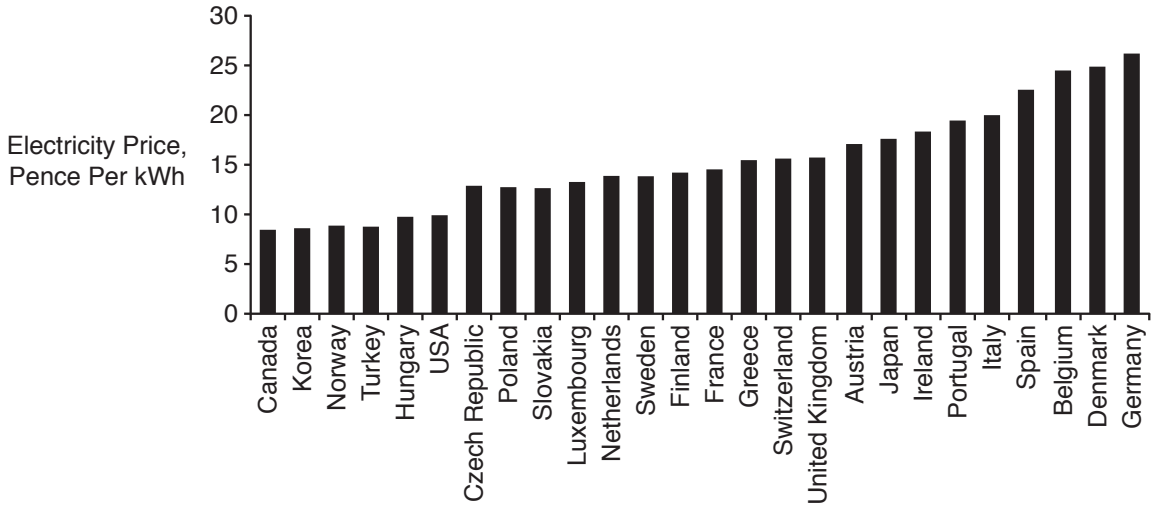


Fig. 2: Domestic electricity price in developed nations in pence per kilowatt hour (kWh) 2017

16 (a) Using **Fig. 1**, calculate how much more of the poorest households' income was spent on energy compared to the richest households in 2016.

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..... **[1]**

(b) (i) Using **Fig. 2**, if the UK Government introduces a tax so that there is a 50% increase in the total electricity price in 2018 compared to 2017, what would the price be per kilowatt hour (kWh) in the UK?

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..... **[2]**

(ii) State what impact the increase in electricity price would have on consumer surplus.

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..... **[1]**

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(iii) Explain why money is used as a medium of exchange to pay for electricity.

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..... **[2]**

(c) Using a diagram, explain the costs experienced by the residents of Lancashire due to the extraction of shale gas.

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..... **[4]**

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SECTION B

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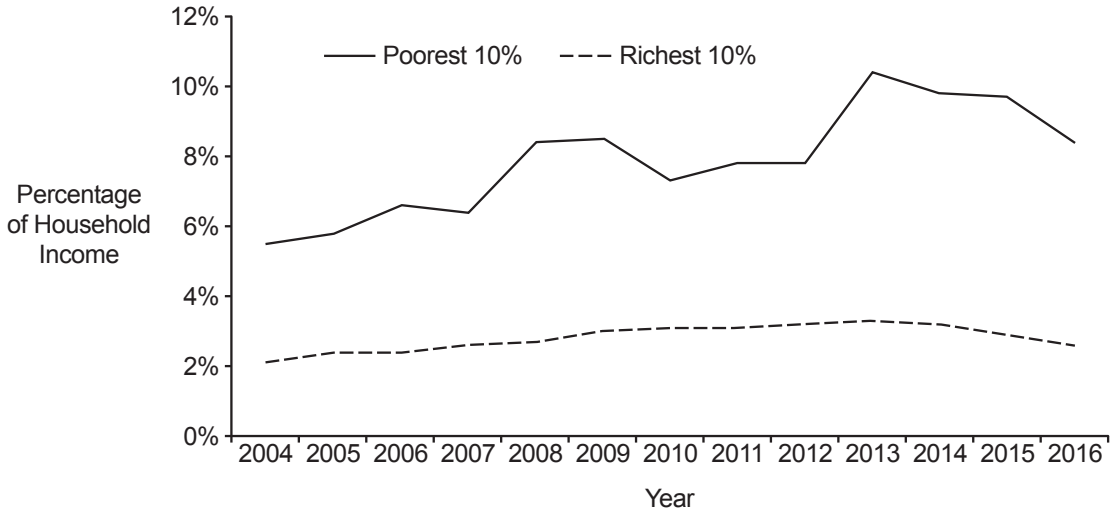


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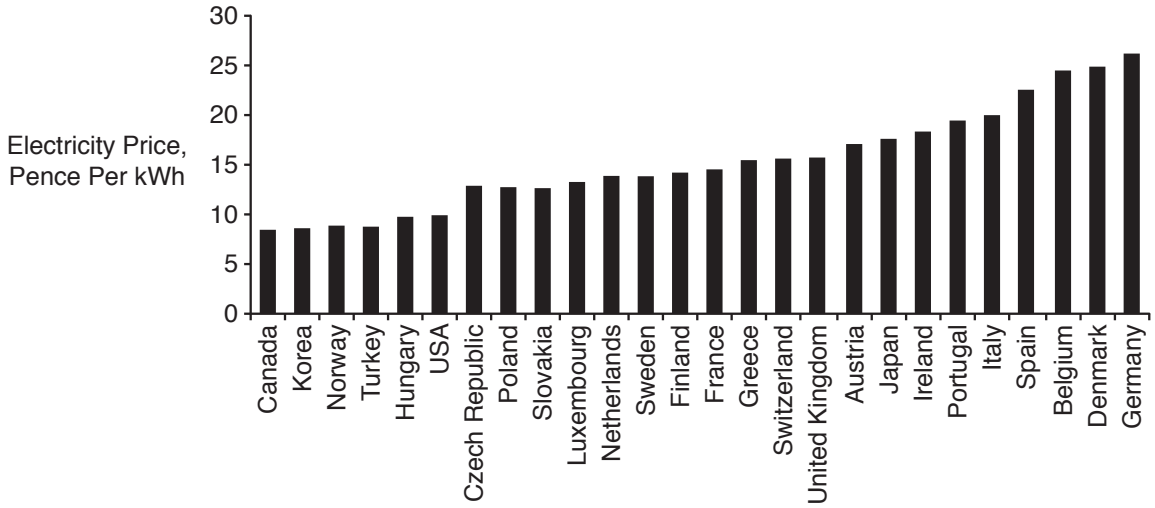


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..... **[2]**

(ii) State what impact the increase in electricity price would have on consumer surplus.

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..... **[1]**

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(d) (i) What type of economic system is likely to have the most government intervention?

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(ii) Using the information provided, explain **two** benefits of government intervention in the energy market.

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(e)* Evaluate, using an appropriate diagram(s), the effects of an increase in the supply of alternative greener energy on the electricity market. **[10]**

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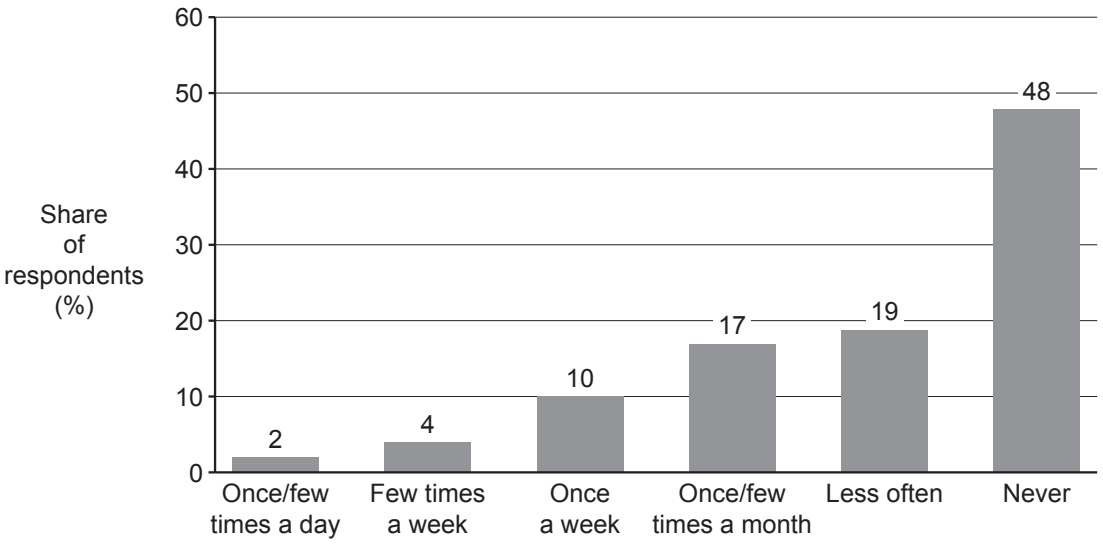
Flour Mills Worked Round The Clock To Meet Demand



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Fig. 1
Frequency of baking at home from scratch 2017



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(c) Using a diagram, explain the disequilibrium that existed in the flour market in 2020.

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..... **[4]**

(d) Explain how a buffer stock system can be used to regulate the **market supply** of a product such as flour.

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SECTION B

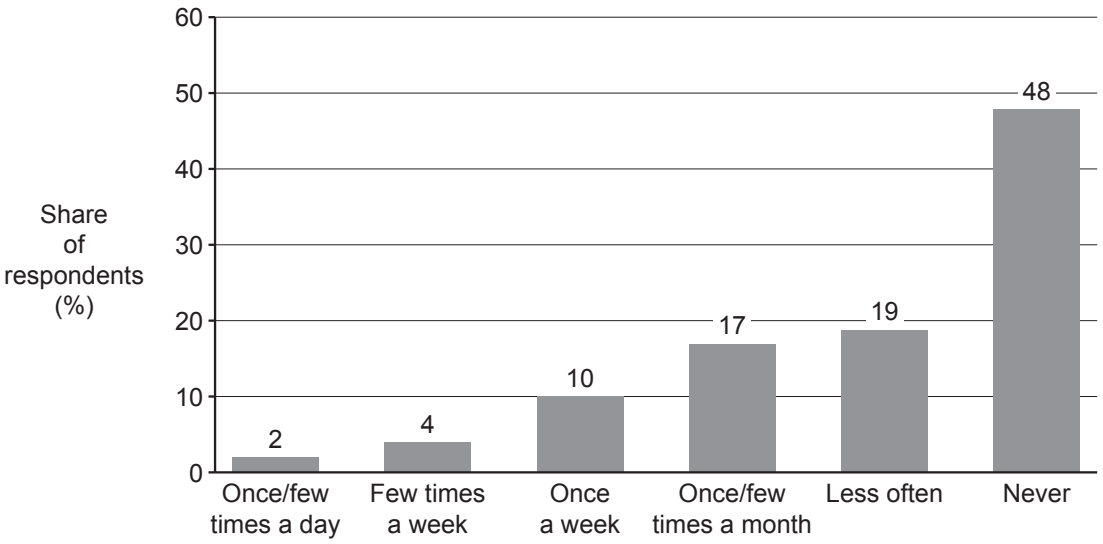
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SECTION B

First, it was a fad. Now, as meat consumption falls, it's part of everyday life.

Veganuary is a global campaign that encourages people to go vegan. A record 500,000 people signed up to the Veganuary challenge to eat only plant-based foods for a month in January 2021. This included 150,000 people in Latin America, 80,000 in the USA and 50,000 in Germany. In 2021 the overall number was double the number in January 2019.

Research from the investment bank UBS on plant-based alternatives to meat, such as veggie burgers and sausages, showed a rising number of people trying the new products. The proportion of people who tried the alternatives rose from 48% to 53% between March and November 2020, according to UBS's survey of 3,000 consumers in the UK, US and Germany. It also found that half of those who tried plant-based alternatives continued to eat them at least weekly.

A spokesperson from Veganuary said "Pretty much everyone has accepted we need to be reducing animal products in our diets for environmental reasons. The way British supermarkets have embraced Veganuary in 2020 is truly game-changing with television and radio campaigns as well as promoting veganism on their websites and offering free recipes. They are not simply using it as a marketing opportunity, but are promoting the many benefits of plant-based eating. As key players of our food supply, they know that the only sustainable way forward is plant-focused."

Plant-based milk has been steadily growing and represented 14% of the milk category in 2019, according to statistics from the Plant Based Foods Association. While sales of plant-based milk continue to grow, sales of dairy milk are relatively flat. The cross elasticity of demand between oat milk and dairy milk is 0.23. Oat milk sales have jumped from 2020 to 2022 by 345%. The health benefits, such as high prebiotic fibre in oat milk are factors attracting customers. As consumers consider health to be more important than ever, they are willing to pay a premium for products that offer health benefits, as well as being able to contribute towards environmental protection. The income elasticity of demand for oat milk is +1.8. As well as the mass adoption of vegan and similar diets owing to moral concerns, plant-based milk market growth continues to be driven by an increase in milk allergies and lactose-intolerant consumers. This is encouraging manufacturers such as the Coca-Cola Company, to introduce new oat milk variants to appeal to their consumers, further driving oat milk sales.

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Fig. 1

Reasons people give for eating less or no meat

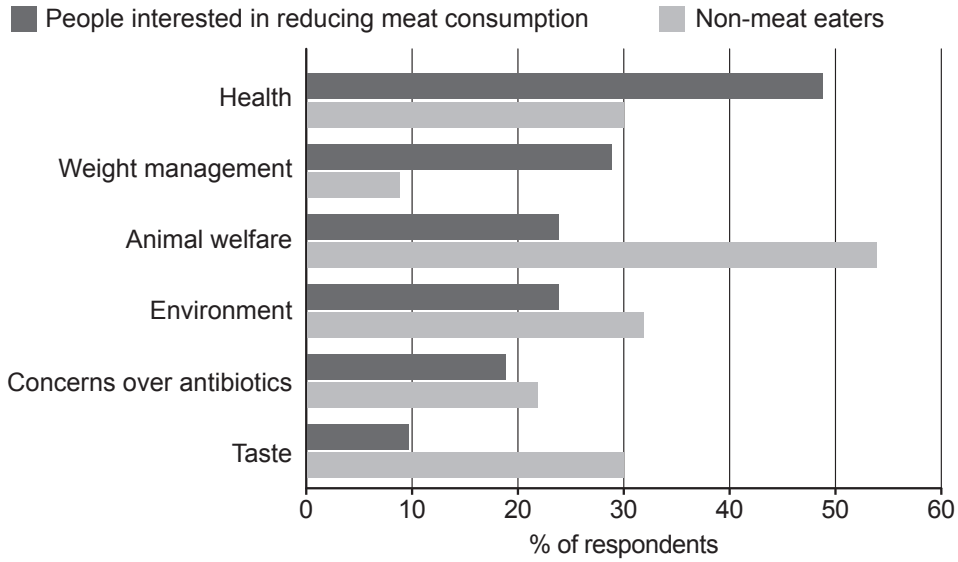
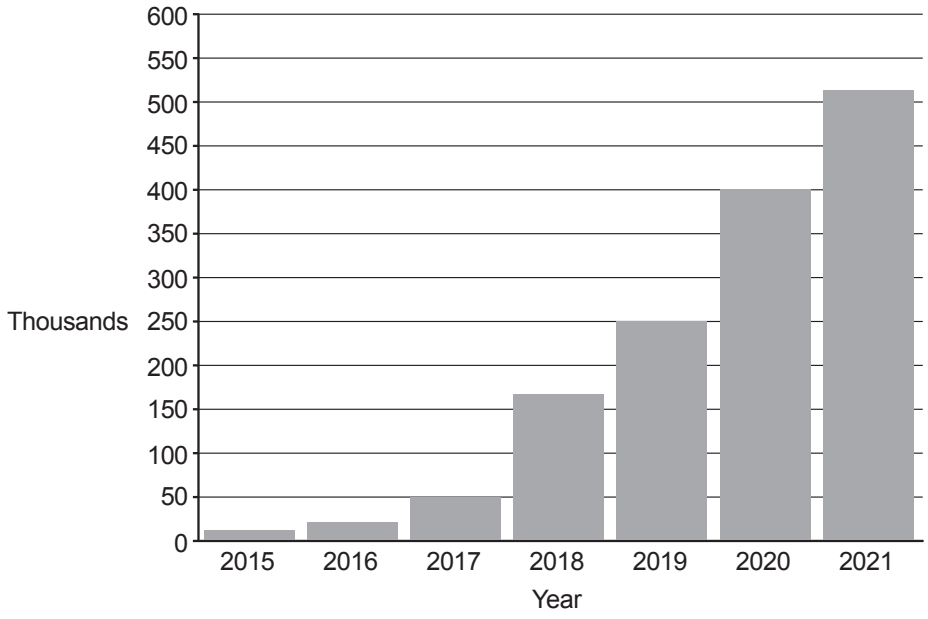


Fig. 2

Number of people signing up to Veganuary



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Turn over

16

(a) Using **Fig. 1**, state what percentage of non-meat eaters thought it was better for their health not to eat meat.

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..... **[1]**

(b)

(i) Using **Fig. 2**, calculate the percentage increase in the number of people who signed up for Veganuary from 2017 to 2021.

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..... **[2]**

(ii) Using the income elasticity value **(line 25)**, explain how a fall in income will affect the demand for oat milk.

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..... **[2]**

(c) Using a diagram, explain how supermarkets may respond to the popularity of Veganuary.

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..... **[4]**

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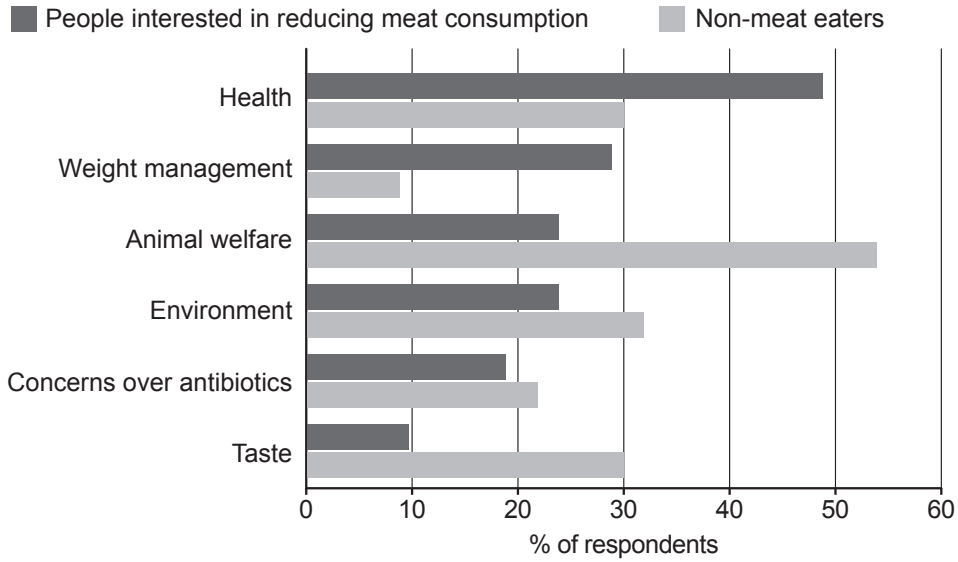
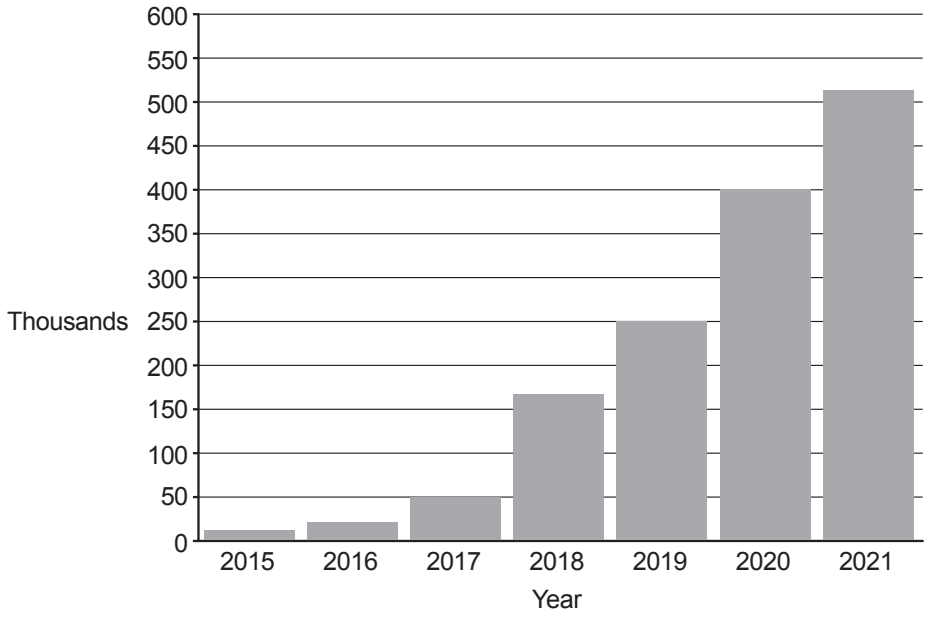


Fig. 2

Number of people signing up to Veganuary



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Turn over

(d)

(i) Using the value of cross elasticity of demand **(lines 20–21)**, explain the relationship between oat milk and dairy milk.

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(ii) Explain how the change in demand for oat milk will affect the producer surplus of oat farmers.

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SECTION B

Answer **all** the questions in this section.

How much does a festival cost?

The number of people attending live music festivals and 'gigs' has risen substantially in the last 10 years to 2015. Festivals across the UK have expanded and a number of new festivals, catering to a variety of different music tastes, have sprung up.

The amount people are spending on gigs and festivals has increased by 8.5% from July 2014 to £9 bn in July 2015. The average person spends more than £450 attending live music events each year, according to figures from the Association of Independent Festivals. Glastonbury, which hosted around 190 000 attendees, is the most expensive festival, with the average person spending £425 over the long weekend alone, taking into account transport, food and drink. A high proportion of this spending is accounted for by the price of a ticket.

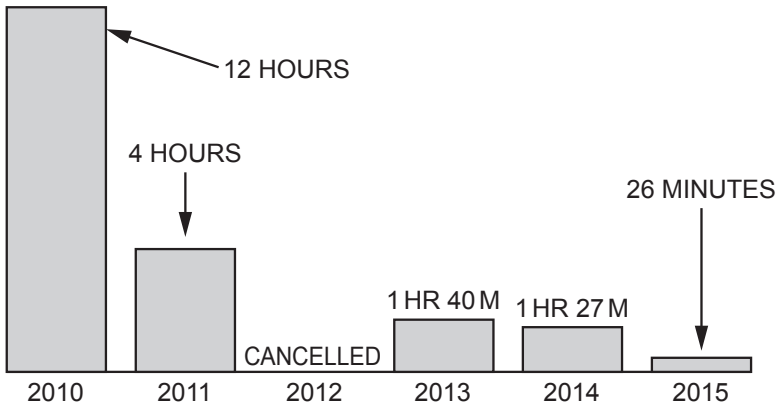
Fig. 1 The rise in the price of festival tickets (2006–2015)

	2006	2015
Latitude	£95	£192.50
V Festival	£120	£189
Glastonbury[1]	£145	£220
Reading	£135	£205
Bestival	£105	£195
Benicassim	£105	£114

[1]Price for 2007, no festival in 2006

Despite rising ticket prices, Glastonbury remains one of the most popular festivals in the UK. This is reflected in the time it takes for tickets to sell out leaving some potential purchasers disappointed.

Fig. 2 How quickly did Glastonbury tickets sell out?



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The price of tickets for some festivals, however, has fallen. This is largely due to an increase in the number of festivals which has forced many promoters to lower ticket prices. In some cases, this has proved a very successful strategy. Green Man Festival reduced the price of a weekend ticket from £300 to £250 and this led to 23% increase in ticket sales. Better weather and improved transport provision also helped to account for the rise in ticket sales.

However, the impact of festivals on local communities is not all positive. Litter, vandalism and anti-social behaviour increases. The additional cost of policing at Glastonbury in 2015 was estimated to be £287 000. This cost was paid by the festival organisers.

16 (a) (i) Calculate the amount spent on going to gigs and festivals in July 2014.

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..... **[2]**

(ii) Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?

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..... **[1]**

(b) (i) Using information in the case study, explain one reason, other than price, why there has been an increase in demand for tickets at the Green Man Festival.

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..... **[2]**

(ii) Using Fig. 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.

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(c) The number of tickets to Glastonbury Festival is fixed at 190 000. Using an appropriate diagram, explain why there is disequilibrium in the market for Glastonbury Festival tickets in 2015.

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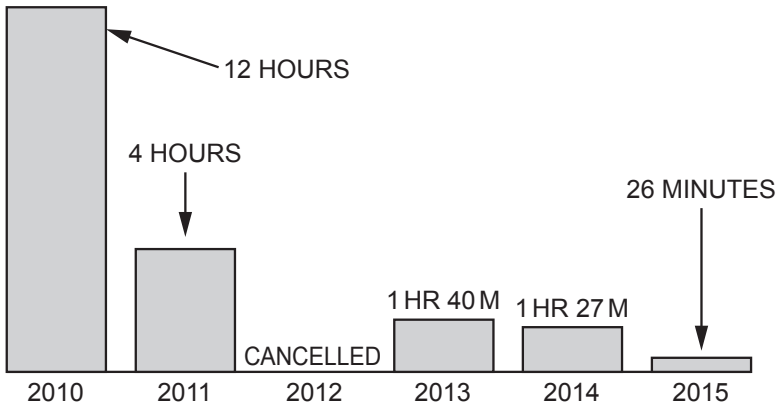
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Glastonbury[1]	£145	£220
Reading	£135	£205
Bestival	£105	£195
Benicassim	£105	£114

[1]Price for 2007, no festival in 2006

Despite rising ticket prices, Glastonbury remains one of the most popular festivals in the UK. This is reflected in the time it takes for tickets to sell out leaving some potential purchasers disappointed.

Fig. 2 How quickly did Glastonbury tickets sell out?



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The price of tickets for some festivals, however, has fallen. This is largely due to an increase in the number of festivals which has forced many promoters to lower ticket prices. In some cases, this has proved a very successful strategy. Green Man Festival reduced the price of a weekend ticket from £300 to £250 and this led to 23% increase in ticket sales. Better weather and improved transport provision also helped to account for the rise in ticket sales.

However, the impact of festivals on local communities is not all positive. Litter, vandalism and anti-social behaviour increases. The additional cost of policing at Glastonbury in 2015 was estimated to be £287 000. This cost was paid by the festival organisers.

16 (a) (i) Calculate the amount spent on going to gigs and festivals in July 2014.

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..... **[2]**

(ii) Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?

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..... **[1]**

(b) (i) Using information in the case study, explain one reason, other than price, why there has been an increase in demand for tickets at the Green Man Festival.

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..... **[2]**

(ii) Using Fig. 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.

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(d) Explain how the additional policing costs might affect the price of Glastonbury Festival tickets.

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10-MARK QUESTIONS

5 questions in this booklet

SECTION B

Answer **all** the questions in this section.

Avocados are an agricultural fruit crop grown in Africa, Asia and North and South America. Mexico is the largest supplier. The countries listed below accounted for 85% of total world supply in 2014.

Top 10 Avocado Producing Countries		
Rank	Country	Production in tonnes, 2014
1	Mexico	1520695
2	Dominican Republic	428301
3	Peru	349317
4	Indonesia	307326
5	Colombia	288739
6	Kenya	218692
7	United States of America	179124
8	Rwanda	161519
9	Chile	160000
10	Brazil	156699

Fig. 1 World avocado production. 2014 = 4 335 974 tonnes

Whilst the world price of many foods has had large price fluctuations, this has not been true in the case of the avocado. Demand has continued to exceed supply in the global market. This has meant that the price of the avocado between 1996 and 2017, overall, has risen in the UK.

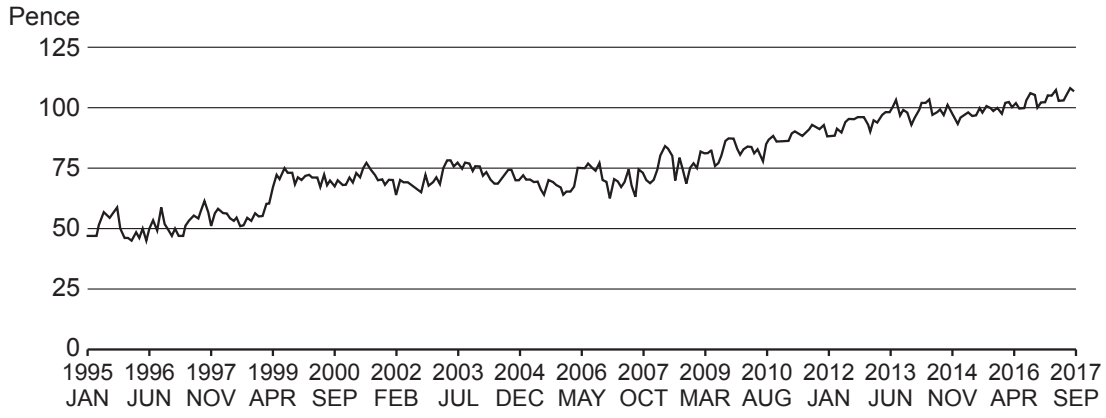


Fig. 2 UK price of avocados

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In the UK twenty years ago, avocados were seen as a luxury food bought by higher income households, but today this has changed. Whilst GDP increased from £1694 m in 2012 to £2041 m in 2017, sales of avocados increased by 184%.

Two reasons for the increased worldwide sales have been: claims, supported by celebrity endorsements, that avocados have health benefits, such as lowering cholesterol; and the rise in the standard of living in countries such as China and India.

However, the US government is concerned about the effect of imported avocados on domestic growers. It is considering, therefore, imposing a tax on imports of the fruit to protect US farmers' income.

16 (a) What is meant by 'demand'?

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..... **[1]**

(b) (i) Calculate the percentage of world output supplied by Mexico in 2014.

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..... **[4]**

(ii) Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.

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(e) (i) What is meant by 'income elasticity of demand'?

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(ii) Evaluate, using an appropriate calculation, the significance of income elasticity of demand for avocados from 2012 to 2017. **[10]**

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SECTION B

Answer **all** the questions in this section.

UK Energy Market

Scientists predict that if global warming continues, it is likely to have a devastating effect on the planet. This view has forced governments, including the UK's, to agree policies to limit global warming. These policies aim to reduce the use of energy sources which produce greenhouse gases and encourage greener energies.

UK electricity bills have risen by 75% since 2004, despite a fall in demand of roughly 10%. One of the reasons for these rises is that the government has increased indirect taxes on electricity consumption in order to subsidise renewable sources and to encourage energy efficiency. The cost of clean energy subsidies added to consumer bills has almost tripled in the last five years, and is set to increase further. Critics argue the costs of subsidies should be met by direct taxation. This would help, also, to protect the poor from price rises. A price cap has been introduced by Ofgem, the energy markets regulator which benefits 15 million energy users.

Shale gas extraction has increased in a number of countries, including the USA, in recent years. This involves drilling through rocks, which can lead to shale gas leaking into surrounding groundwater and cause air pollution and noise disturbance. Extraction is often conducted near built-up areas and can cause earth tremors. In November 2019, the government suspended shale gas extraction, due to fears about earthquakes it had been causing in Lancashire.

New offshore wind power projects have been announced in the UK to be delivered by 2025. These will power more than seven million homes at a lower-than-expected cost as the cost of offshore wind has fallen by about 30% in the last two years. The government says the wind farms represent a breakthrough, typically generating greener electricity without subsidy. The cheapest operator will provide power for as low as £40 per megawatt hour. By comparison, power from Hinkley Point C – the new nuclear power station in Somerset, also due to open in 2025, which has been heavily subsidised is expected to cost £92.50 per megawatt hour. The government expects the overall wholesale electricity price will range between £48.95 in 2023–25 to £52.36 per megawatt hour in 2026–27.

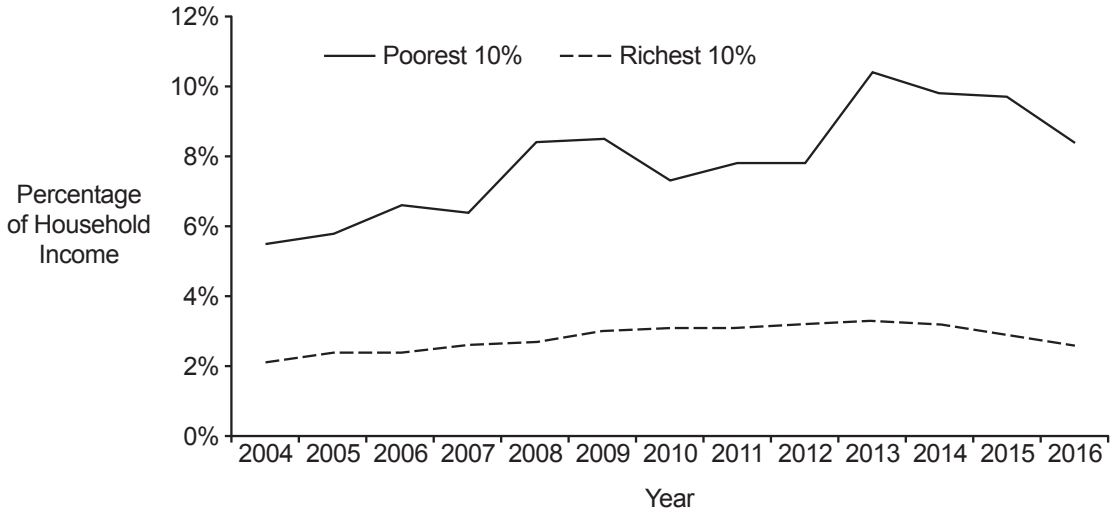


Fig. 1: Percentage of household income spent on energy for the richest and poorest 10% of the UK population

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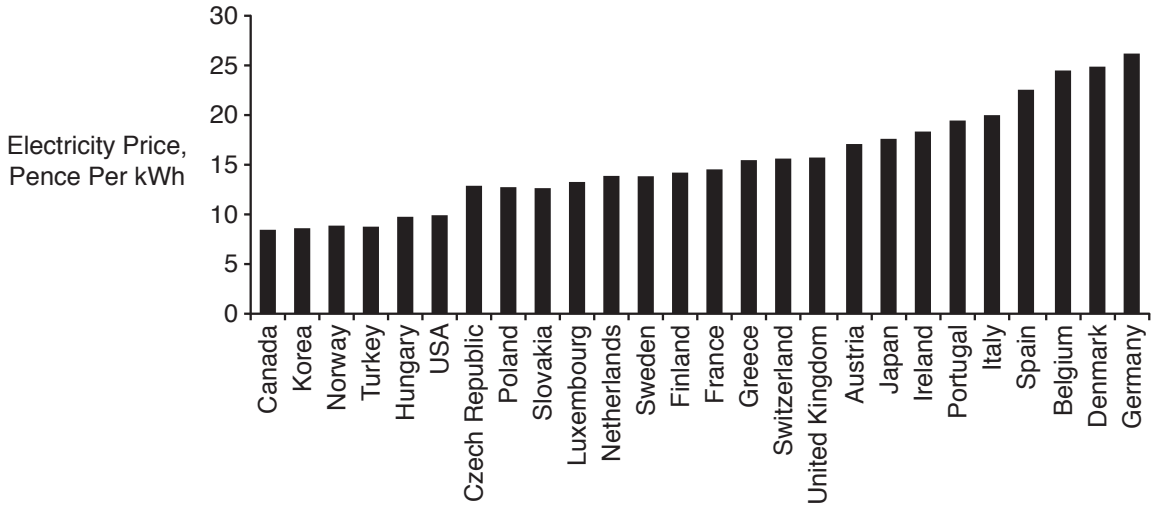


Fig. 2: Domestic electricity price in developed nations in pence per kilowatt hour (kWh) 2017

16 (a) Using **Fig. 1**, calculate how much more of the poorest households' income was spent on energy compared to the richest households in 2016.

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..... **[1]**

(b) (i) Using **Fig. 2**, if the UK Government introduces a tax so that there is a 50% increase in the total electricity price in 2018 compared to 2017, what would the price be per kilowatt hour (kWh) in the UK?

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(ii) State what impact the increase in electricity price would have on consumer surplus.

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(d) (i) What type of economic system is likely to have the most government intervention?

..... **[1]**

(ii) Using the information provided, explain **two** benefits of government intervention in the energy market.

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(e)* Evaluate, using an appropriate diagram(s), the effects of an increase in the supply of alternative greener energy on the electricity market. **[10]**

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SECTION B

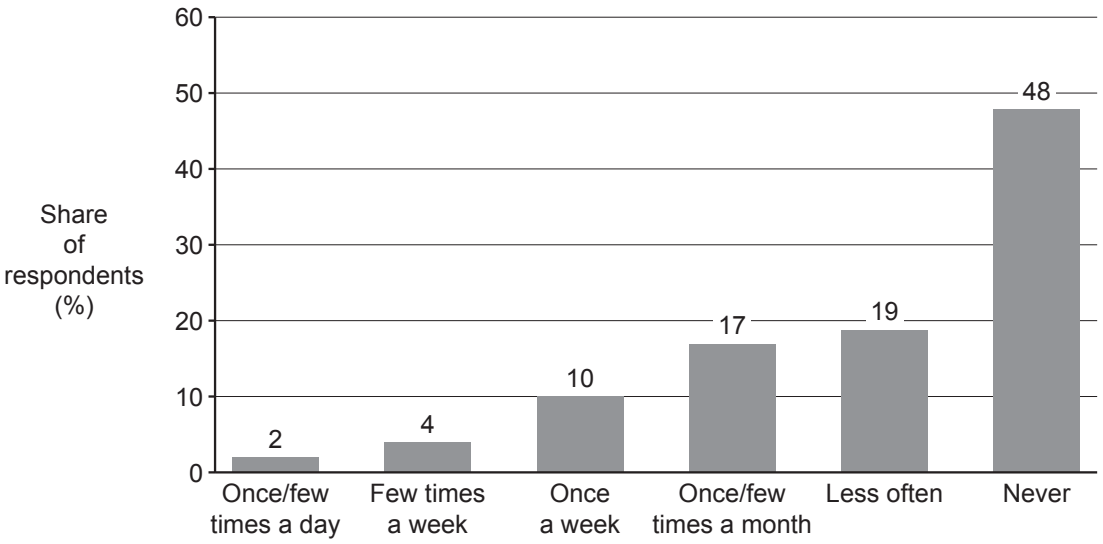
Flour Mills Worked Round The Clock To Meet Demand



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Fig. 1
Frequency of baking at home from scratch 2017



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(e)* Evaluate, using an appropriate diagram(s), the effectiveness of a government policy that can be used to encourage UK flour millers to increase supply. **[10]**

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SECTION B

First, it was a fad. Now, as meat consumption falls, it's part of everyday life.

Veganuary is a global campaign that encourages people to go vegan. A record 500,000 people signed up to the Veganuary challenge to eat only plant-based foods for a month in January 2021. This included 150,000 people in Latin America, 80,000 in the USA and 50,000 in Germany. In 2021 the overall number was double the number in January 2019.

Research from the investment bank UBS on plant-based alternatives to meat, such as veggie burgers and sausages, showed a rising number of people trying the new products. The proportion of people who tried the alternatives rose from 48% to 53% between March and November 2020, according to UBS's survey of 3,000 consumers in the UK, US and Germany. It also found that half of those who tried plant-based alternatives continued to eat them at least weekly.

A spokesperson from Veganuary said "Pretty much everyone has accepted we need to be reducing animal products in our diets for environmental reasons. The way British supermarkets have embraced Veganuary in 2020 is truly game-changing with television and radio campaigns as well as promoting veganism on their websites and offering free recipes. They are not simply using it as a marketing opportunity, but are promoting the many benefits of plant-based eating. As key players of our food supply, they know that the only sustainable way forward is plant-focused."

Plant-based milk has been steadily growing and represented 14% of the milk category in 2019, according to statistics from the Plant Based Foods Association. While sales of plant-based milk continue to grow, sales of dairy milk are relatively flat. The cross elasticity of demand between oat milk and dairy milk is 0.23. Oat milk sales have jumped from 2020 to 2022 by 345%. The health benefits, such as high prebiotic fibre in oat milk are factors attracting customers. As consumers consider health to be more important than ever, they are willing to pay a premium for products that offer health benefits, as well as being able to contribute towards environmental protection. The income elasticity of demand for oat milk is +1.8. As well as the mass adoption of vegan and similar diets owing to moral concerns, plant-based milk market growth continues to be driven by an increase in milk allergies and lactose-intolerant consumers. This is encouraging manufacturers such as the Coca-Cola Company, to introduce new oat milk variants to appeal to their consumers, further driving oat milk sales.

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Fig. 1

Reasons people give for eating less or no meat

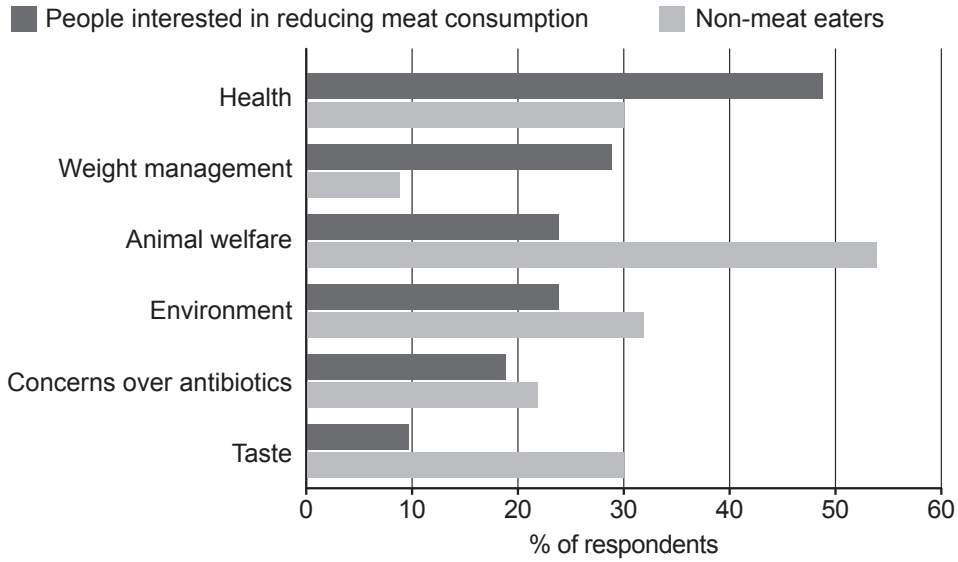
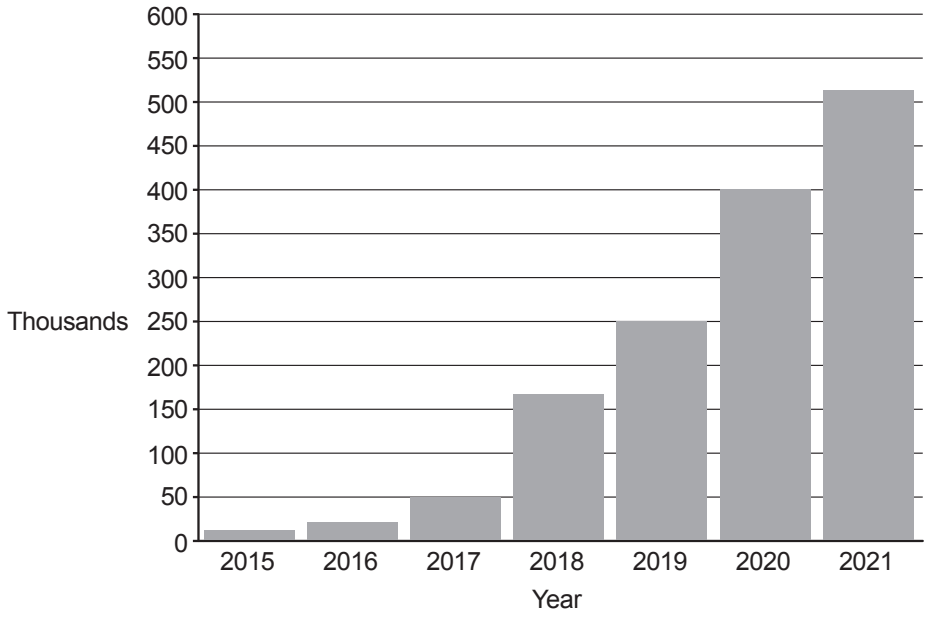


Fig. 2

Number of people signing up to Veganuary



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(e)* Evaluate, using an appropriate diagram(s), the effects on farmers of an increase in demand for vegan products. **[10]**

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SECTION B

Answer **all** the questions in this section.

How much does a festival cost?

The number of people attending live music festivals and 'gigs' has risen substantially in the last 10 years to 2015. Festivals across the UK have expanded and a number of new festivals, catering to a variety of different music tastes, have sprung up.

The amount people are spending on gigs and festivals has increased by 8.5% from July 2014 to £9 bn in July 2015. The average person spends more than £450 attending live music events each year, according to figures from the Association of Independent Festivals. Glastonbury, which hosted around 190 000 attendees, is the most expensive festival, with the average person spending £425 over the long weekend alone, taking into account transport, food and drink. A high proportion of this spending is accounted for by the price of a ticket.

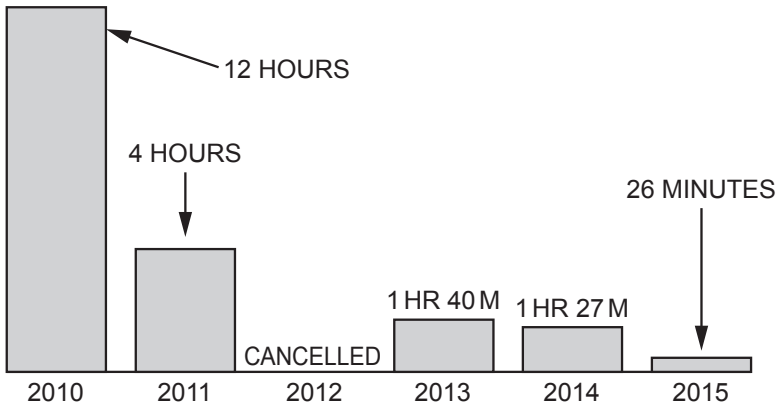
Fig. 1 The rise in the price of festival tickets (2006–2015)

	2006	2015
Latitude	£95	£192.50
V Festival	£120	£189
Glastonbury[1]	£145	£220
Reading	£135	£205
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Benicassim	£105	£114

[1]Price for 2007, no festival in 2006

Despite rising ticket prices, Glastonbury remains one of the most popular festivals in the UK. This is reflected in the time it takes for tickets to sell out leaving some potential purchasers disappointed.

Fig. 2 How quickly did Glastonbury tickets sell out?



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The price of tickets for some festivals, however, has fallen. This is largely due to an increase in the number of festivals which has forced many promoters to lower ticket prices. In some cases, this has proved a very successful strategy. Green Man Festival reduced the price of a weekend ticket from £300 to £250 and this led to 23% increase in ticket sales. Better weather and improved transport provision also helped to account for the rise in ticket sales.

However, the impact of festivals on local communities is not all positive. Litter, vandalism and anti-social behaviour increases. The additional cost of policing at Glastonbury in 2015 was estimated to be £287 000. This cost was paid by the festival organisers.

16 (a) (i) Calculate the amount spent on going to gigs and festivals in July 2014.

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..... **[2]**

(ii) Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?

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..... **[1]**

(b) (i) Using information in the case study, explain one reason, other than price, why there has been an increase in demand for tickets at the Green Man Festival.

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..... **[2]**

(ii) Using Fig. 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.

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(e) Evaluate the usefulness of the concept of price elasticity of demand for tickets to the organisers of the Green Man Festival.

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20-MARK QUESTIONS

11 questions in this booklet

14

SECTION C

Answer Question 17 **or** Question 18.

17* Since gaining its independence in 1991, Estonia has moved from a centrally planned to a free market economy with an increasing reliance on the price mechanism to allocate resources.

Evaluate, using an appropriate diagram(s), the impact on an economy of moving from a centrally planned to a free market system. **[20]**

OR

18* The consumption of sugary drinks can lead to obesity.

Evaluate, using an appropriate diagram(s), the effectiveness of an indirect tax on sugary drinks as a method of reducing the market failure arising from their consumption. **[20]**

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SECTION C

Answer Question 17 **or** Question 18.

17* In the UK over 85% of healthcare is provided by the public sector.

Evaluate, using an appropriate diagram(s), whether healthcare should be provided by the state. **[20]**

OR

18* World oil prices are predicted to double by 2020.

Evaluate, using an appropriate diagram(s), the extent to which this predicted increase is likely to be due solely to a rise in costs of production. **[20]**

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17* Between 2011 and 2016 the total government subsidy provided for each university student fell from £14 000 to £10 000 per student.

Evaluate, using an appropriate diagram(s), the effects of reducing the subsidy for university education. **[20]**

OR

18* In 2014 the soft drinks manufacturer Coca-Cola spent over $3 billion on global advertising.

Evaluate, using an appropriate diagram(s), the effects of increased advertising on the market for Coca-Cola products. **[20]**

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SECTION C

Answer Question 17 **or** Question 18.

17* The price elasticity of demand for bread is inelastic while for designer watches it is elastic.

Evaluate, using an appropriate diagram(s), the factors that determine the price elasticity of demand for a product.

[20]

OR

18* Division of labour and specialisation is used in many firms in Germany, a country which specialises in high value manufacturing.

Evaluate, using an appropriate diagram(s), the role of specialisation and division of labour in addressing the problem of scarcity. **[20]**

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SECTION C

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17* Palm oil companies have been destroying rainforests and habitat for wildlife because they want more land to grow palm oil trees.

Around 24 million hectares of rainforest were destroyed in Indonesia between 1990 and 2015 – an area the size of the UK.

Evaluate, using an appropriate diagram(s), the effectiveness of imposing a tax on palm oil production to reduce negative externalities. **[20]**

OR

18* For decades China used a planned economy to allocate resources before transitioning to an economy which incorporates some functions of a market economy.

Evaluate, using an appropriate diagram(s), whether a country would benefit from moving from a planned to a market economy. **[20]**

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SECTION C

Answer Question 17 **or** Question 18.

17* The UK government is being urged to reduce the indirect tax on gym membership.

Evaluate, using an appropriate diagram(s), the effectiveness of reducing the indirect tax on gym membership to encourage people to take more exercise. **[20]**

OR

18* In 2017 energy prices rose by an average of 6%.

Evaluate, using an appropriate diagram(s), the effect of an increase in energy prices on the producer surplus of energy supply firms. **[20]**

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MARK SCHEMES

official OCR mark schemes

1	**B**	**Rationale** **A.** This is not a function of money ***B.Correct*** **C.**This is not a function of money. **D.**This is not a function of money	**1**	

10	**A**	**Rationale** **A.*Correct:*** -10%/+ 25% = -0.4; price of X and demand for Y are inversely related, so the goods are complementary **B.**Incorrect XED **C.** Correct XED. Goods are complements **D.**Incorrect XED. Goods are complements	3	x

11	**B**	**Rationale** **A.** Consumers do not understand the benefits of consuming merit goods and this means that there is information failure in the market **B.** ***Correct:*** There is information failure and merit goods may lead to positive externalities **C.** Merit goods will not create positive externalities and may be (under) provided by the private sector **D.** Merit goods may be underprovided by the private sector but may lead to positive externalities.	1	

13	**C**	**Rationale** **A.** This will tend to make the supply of the product less elastic (less than one) **B.** This will make demand less price elastic **C.** ***Correct:*** this will mean that supply can more easily be increased in response to a rise in price **D.** This will tend to make the supply of the product less elastic (less than one)	2	

16	**a**		***What economic term is used to describe pollution and congestion?***		
			Negative externalities or Costs to third party	1 (AO1 x1)	Do not accept demerit goods.

3	**A**	**Rationale** **A.*Correct:*** This will cause a movement along the demand curve (an extension) **B.**This will cause the demand curve to shift to the right (an increase) **C.**This will cause the demand curve to shift to the right (an increase)	2	

4	**D**	**Rationale** **A.** A rise in price will reduce consumer surplus **B.** A rise in price will reduce consumer surplus **C.** Consumer surplus falls but incorrect area. Area is new consumer surplus. **D.** ***Correct:*** the original surplus is P1xz. The new surplus is P2xy. P1P2yz represents the reduction in consumer surplus.	2	x

6	**C**	**Rationale** A. This will affect the demand at any given price B. This is also a determinant of demand C. ***Correct:*** Price and availability of substitutes determine the responsiveness of quantity demanded of a good to a change in its price	1	

8	**C**	**Rationale** **A.** Marginal social costs (MSC) is marginal external cost (MEC) plus marginal private cost (MPC) **B.** MSC is not directly related to marginal private benefit **C.** ***Correct*****:** MSC is made up of MEC and MPC **D.** MSC is not directly related to marginal social benefit	1	

9	**B**	**Rationale** **A.** Based on calculating change in demand is 20% (1950/9750) so that the change in income would be 8%.	2	x

1	**A**	**Rationale** **A.** This is when two goods are substitutes for consumers **B.** ***Correct:*** The production of one good uses resources that could be used in production of another **C.** This is when a firms produce a good that has multiple sources of demand **D.** This is when two goods are demanded together	1	

10	**A**	**Rationale** **A.** ***Correct:*** This would make it more difficult for firms to adjust supply in response to price changes. **B.** This would make it easier to supply more should price rise and make supply more price elastic **C.** This would make it easier to supply more should price rise and make supply more price elastic **D.** This would make it easier to supply more should price rise and make supply more price elastic	1	

12	**A**	**Rationale** **A.** ***Correct***: If PED is elastic then as price rises total revenue will fall **B.** If price elasticity of demand (PED) is inelastic, total revenue and price will be positively related **C.** If PED is perfectly inelastic, a rise in price will lead to total revenue rising **D.** PED is unitary, a change in price will leave total revenue unchanged	3	✓

13	**A**	**Rationale** **A.** ***Correct:*** Costs of production will increase price and this will reduce both surpluses **B.** A fall in price would increase both surpluses **C.** Producer surplus will fall **D.** Consumer surplus will fall	2	

15	**C**	**Rationale** **A.** A demerit good is likely to lead to negative externalities **B.** Overproduction occurs when marginal social cost is higher than marginal private cost **C.** ***Correct:*** consumption of a merit good will be too low as consumers underestimate its benefits **D.** It is likely to lead to positive externalities	2	

Question			Answer	Marks	Guidance
16	(a)		***State one factor of production that might be used in the production of submarines.***		
			Accept land, labour capital or enterprise	1 (AO1 x1)	

3	**C**	**Rationale** **A.** Supply will rise and demand will fall **B.** Supply and demand will rise **C.** ***Correct:*** Supply will fall (as costs of production increase) and demand will rise (as tastes change infavour of the product) **D.** Supply and demand will fall	2	✓

ANSWER [1 mark]

Mark scheme row could not be matched automatically - see the official OCR H060/01 Microeconomics mark scheme (June 2018).

6	**A**	**Rationale** **A.** ***Correct***: Consumers lack correct information **B.** Merit goods lead to positive consumption externalities **C.** Merit goods will be provided by the private sector **D.** Quantity traded is too low	1	

7	**C**	**Rationale** **A.** Maximum price is not affected by elasticity of demand **B.** Maximum price will not be affected by elasticity of supply **C.** ***Correct:*** Price will be at equilibrium **D.** Maximum prices will always lead to excess demand	2	

8	**B**	**Rationale** **A.** Quantity demanded has increased by 25% **B.** ***Correct:*** 25%/-20% = -1.25 **C.** As YED is negative income must have fallen **D.** As YED is negative, income must have fallen	3	✓

9	**A**	**Rationale** **A.** ***Correct*:** Both Y and Z are substitutes for X, so a fall in the price of X will lead to a decrease in demand for Y and Z **B.** Z is a substitute not a complement for X (as YED is positive) **C.** Y is a substitute not a complement for X (as YED is positive) **D.** Neither Y or Z are complements for X	2	✓

1	**A**	**Rationale** **A.** ***Correct: This is a likely to be found in a planned economy*** **B.** There are likely to be high tax rates on any profits companies earn **C.** The state will provide all essential services like education **D.** Workers may be paid differently (though inequality may be less)	1	

13	**B**	**Rationale** **A.** Overall welfare is maximised at market price where both surpluses are maximised **B.** ***Correct: Overall welfare is maximised at market price where both surpluses are maximised*** **C.** Overall welfare is maximised at market price where both surpluses are maximised **D.** Overall welfare is maximised at market price where both surpluses are maximised	1	

14	**D**	**Rationale** **A.** An increase in interest rates will reduce disposable income and demand will fall **B.** A fall in demand will lead to a fall in quantity traded **C.** Interest rates do not affect price elasticity of supply **D.** **Correct: Interest rates are the cost of capital so costs of production will rise and supply will fall**	2	

15	**D**	**Rationale** **A.** Courts and prisons are provided by the government but are excludable and rival **B.** Hospitals and ambulance services are provided by both government and private sector, but are excludable and rival **C.** Rail and bus services are excludable and rival **D.** ***Correct: Street lighting and street cleaning are non-excludable and non-rival***	1	

16	**a**		***What is meant by demand?***		
			Accept: The willingness and ability to purchase a good or service at the given price in a given time period.	1 (AO1x1)	Candidates do not need to state 'ability' or 'in a given time period'

2	**B**	**Rationale** **A.** It may be easier to replace labour with machines (capital) as tasks are subdivided **B.** ***Correct: as workers become more skilled output per worker will increase*** **C.** Workers need fewer skills as tasks are subdivided; training costs will fall **D.** Workers are likely to be highly specialised, so it will be more difficult to change jobs	1	

3	**A**	**Rationale** ***A. Correct: Supply will increase (as costs of production fall) and demand will fall (as global demand for steel falls)*** **B.** Supply and demand will rise **C.** Supply will fall and demand will rise **D.** Supply and demand will fall	2	

4	**C**	**Rationale** **A.** A fall in income will lead to a fall in the demand for X **B.** A fall in income will lead to a fall in demand for X ***C. Correct: As X is normal and X and Y are complements then the demand for X will increase*** **D.** As X and Y are complements a rise in the price of Y will lead to a fall in demand for X	3	x

5	**B**	**Rationale** ***A.*** This will mean PED is inelastic ***B. Correct: This will mean PED is elastic*** **C.** This will mean PED is inelastic **D.** This will mean PED is inelastic	1	

9	**C**	**Rationale** **A.** The change in quantity demanded is 10% as it is the change (20) divided by the original quantity (200) and change in price is 20% as it is the change in price (£8) over the original price (£40) **B.** This has the formula the wrong way round **C.** **Correct: The change in quantity demanded is 10% as it is the change (20) divided by the original quantity (200) and change in price is 20% as it is the change in price (£8) over the original price (£40**) **D.** The change in quantity demanded is 10% as it is the change (20) divided by the original quantity (200) and change in price is 20% as it is the change in price (£8) over the original price (£40)	2	x

		D People supply labour to firms		
10	**D**	Rationale: A Social efficiency B Distributive efficiency C Definition of allocative efficiency D **Correct:** Productive efficiency	1	

		D **Correct:** Free good		
13	**A**	Rationale: A **Correct**: Negative XED so complement B income elasticity of demand C Positive XED D Zero XED	2	

Question			Answer	Mark	Guidance
16	(a)		**Using Fig. 1, calculate how much more of the poorest household's income was spent on energy compared to the richest households in 2016.** 6% (points) (1)	**1** (AO1x1)	Allow a range of marks between 5% and 6.5% **Quantitative skills rewarded in this question**

16	**(b)**	**(ii)**	**State what impact the increase in electricity price would have on consumer surplus.** Consumer surplus would fall (1)	**1** (AO1x1)	Award any response signifying a reduction in consumer surplus

16	**(d)**	**(i)**	**What type of economic system is likely to have the most government intervention?** Planned economy (1)	**1** (AO1x1)	Accept command economy [1]

		D Rent		
2	**B**	Rationale: A 8% added **B Correct:** ?/25% x 100 = % change in quantity supply of 20%. C 25% added D 80% added	1	Yes

		D 50% added		
3	**D**	Rationale: A Joint demand B Derived demand C Competitive demand D **Correct:** Definition of composite, increases in D for one leads to a fall is S of the other	2	

		D **Correct:** Definition of composite, increases in D for one leads to a fall in S of the other		
4	**A**	Rationale: A Correct**:** Increase in income so demand curve shifts right B Demand curve shifts left C Demand curve shifts left D Movement along	2	

		D **Correct**: Relatively elastic, more responsive to change		
6	**B**	Rationale: A Price does fall but output does not B **Correct**: Output increases and price falls C Price falls and output increases D Does not increase price	2	

		D Does not increase price		
7	**B**	Rationale: A Less than zero B **Correct**: 0.25 Between zero and one C cross elasticity of demand D Greater than 1	3	Yes

Question		Answer	AO	Quantitative skills
8	D	Rationale: A Price should increase towards equilibrium B Unlikely, price is below equilibrium C Supply is not equal to demand D **Correct**: Demand exceeds supply	2	Yes

		D Solution to correct market failure		
10	**B**	Rationale: A No change in quantity demanded B **Correct:** Quantity demanded changes more than the change in price C Small increase in quantity demanded when price falls D Quantity demanded changes in direct proportion to change in price	3	

		D Unitary good		
12	**D**	Rationale: A Elastic B Elastic C Inelastic D **Correct:** Unitary change in price matched by change in demand	3	Yes

		D **Correct**: Unitary change in price matched by change in demand		
13	**C**	Rationale: A -312.5%/ -25% =12.5 B -150% /-25% = 6.0 C **Correct**: -50%/-25%= 2.0 D -12.5%/ -25% =0.5	2	Yes

14	**C**	Rationale: A QS increases B QS increases C **Correct:** QS is likely to increase and price to fall due to increased output	2	

15	**C**	Rationale: A No direct impact B Increases consumer surplus C **Correct:** Decreases consumer surplus D Increases consumer surplus	2	

Question			Answer	Mark	Guidance
16	(a)		**Using Fig. 1, state what percentage of people baked at home from scratch once a week or more often in 2017.** 10+4+2 = 16(%) (1)	**1** (A01x1)	**Quantitative skills rewarded in this question**

2	**A**	Rationale: A **Correct**: -40/+10 B 10/-40 C 10/40 D 40/10	2	Yes

		D **Correct** Opportunity cost		
5	**C**	Rationale: A Perfectly inelastic – very short run B Relatively inelastic – short run C **Correct** Unitary elastic D Relatively elastic, more responsive to change	1	Yes

		D Relatively elastic, more responsive to change		
6	**A**	Rationale: A Correct – most likely item as it is money B Not money C Not money D Not money	1	

8	**A**	Rationale: A **Correct**. Positive externalities are benefits to third parties. B Positive YED alone does not cause market failure. C A rise in price encourages firms to respond to higher demand and so for markets to respond efficiently. D Private costs of production and consumption are considered in decisions, they do not cause market failure.	1	

9	**B**	Rationale: A Positive externality B **Correct:** Negative externality C solution to correct market failure D solution to correct market failure	2	

AI INDIVIDUAL ANSWERS

1 The indicative content indicates the expected parameters for candidates' answers but be prepared to recognise and credit unexpected approaches where they show relevance.

		D The consumer may not pay but scarce resources could have been used		
10	**D**	Rationale: A As rents fall demand will extend B Price will fall below equilibrium C Rental prices should fall as government has set a price below the current equilibrium **D Correct:** As rents fall fewer people will be willing to rent property out	2	

		D Correct: As rents fall fewer people will be willing to rent property out		
11	**C**	Rationale: A Market economy is one with minimal government intervention B Mixed economy is one which combines market and planned economic features **C Correct:** this is not an economic system, but applies to all economies D Planned economy is one which is largely directed by the government	1	

		D A planned economy is one which is largely directed by the government		
12	**C**	Rationale: A MPC shows only the private costs to the chemical manufacturer B This is the position of the market output without government intervention **C Correct:** the triangle represents loss to society D This price does not relate to any quantity	3	Yes

		D This price does not relate to any quantity		
13	**C**	Rationale: A 25% increase in price divided by 30% increase in quantity supplied B 23.5% increase in quantity supplied divided by 20% increase in price **C Correct:** 30% increase in quantity supplied divided by 25% increase in price D 30% increase in quantity supplied divided by 20% increase in price	2	Yes

14	**D**	Rationale: A Costs should fall due to efficiency B Less equipment is required as workers only need the tools for the tasks they focus on C Workers may become bored as there is less variety of work **D Correct:** due to more efficiency more can be produced	1	

		D Correct: due to more efficiency more can be produced		
15	**B**	Rationale: A Currencies are not used in a barter economy **B Correct:** Goods are exchanged directly in a barter economy C Gold is not used as an intermediary medium in a barter economy D Money is not used as an intermediary medium in a barter economy	1	

Question			Answer	Mark	Guidance
16	(a)		**Using Fig. 1, state what percentage of non-meat eaters thought it was better for their health not to eat meat.** 30% (1)	1	Annotate with ✔ Accept 30 without the percentage sign **Quantitative skills rewarded in this question**

Question	Answer	Mark	Guidance

		D Correct: Normative statement that is an opinion.		
4	**A**	Rationale: **A Correct:** Has only one main purpose B Milk can be used in the production of a number of other products C Oil can be used in the production of a number of other products D Wood can be used in the production of a number of other products	2	

		D Wood can be used in the production of a number of other products		
5	**D**	Rationale: A Increase in supply and reduction in demand B Increase in supply and increase in demand C Decrease in supply and decrease in demand **D Correct:** Reduction in supply and increase in demand	3	Yes

		D Households are a type of economic agent		
7	**A**	Rationale: **A Correct:** Demand of 60 units whilst only 25 units are supplied B At price of £30, a total of 60 units are demanded C 25 units are supplied at a price of £30 D This is calculated with the 60 demanded added to the 25 units supplied at £30	2	Yes

8	**B**	Rationale: A Land is a factor of production **B Correct**: savings are not a factor of production C Enterprise is a factor of production D Labour is a factor of production	1	

10	B	Rationale A Benefits to third parties are unlikely to arise from the discharge of waste into a river ***B Correct: the reduction in the discharge of waste reduces the cost on third parties*** C The benefit to the firm in the form of revenue is unlikely to change, although if it creates a better image for the firm, it may increase sales and raise revenue D The cost to the firm, in the short run, is likely to increase as money will be spent on the new technology	2	

12	A	Rationale ***A Correct: More information would alert consumers to the negative externalities, causing demand to fall. Putting more information on the production would raise the costs of production*** B The supply curve would not shift to the right and the quantity traded would decrease C The demand curve would not shift to the right and the quantity traded would decrease D Neither the demand curve nor the supply curve would shift to the right and the quantity traded would decrease	3	x

13	D	Rationale A. This concerns the cross elasticity of demand between two goods B. Price and quantity demanded are usually inversely related C. Cross elasticity of demand is the relationship between a change in the price of one product and demand for another product ***D. Correct This means that as income rises demand falls as in the case of an inferior good***	3	x

16	**a**	**ii**	**Which festival ticket saw the biggest proportionate increase in price between 2006 and 2015?** Latitude [102.6%]	1 (AO1x1)	This is the only acceptable answer

2	D	Rationale *A.* This is not the result of division of labour B. Firms are likely to spend less on training C. This is a cost of division of labour to the consumer ***D. Correct: Division of labour leads to higher productivity and output per unit of labour input falls***	1	

4	C	Rationale A This is the change in quantity supplied as the market moved to equilibrium. B This is the change in quantity supplied if the market originally and a shortage of 36. ***C Correct. Demand would originally have been 46. It then increased to 64.*** D This is the change in quantity demanded if the market had moved to equilibrium from a shortage of 36.	2	x

5	C	Rational A Quantity supplied would now be 10 and there would be a shortage of 20. B Quantity supplied would now be 15 and there would be a shortage of 10. ***C Correct. Quantity demanded and quantity supplied would now be in equilibrium. Firms would supply at a price of £8 what they had previously supplied at £6 (£8 – tax).*** D Quantity supplied would now be 25 and there would be a surplus of 10.	3	x

6	B	Rationale A PES is 2.0 rather than the price change being £2. ***B Correct. 2.0 = 30%/? = 15%. Price rose by 15% i.e. £9.*** C The change in price is £15 rather than 15%. D £18 is 30% of 60. 30% is the change in quantity supplied.	2	x

9	A	Rationale ***A. Correct: The price mechanism allocates resources*** B. Government failure is an effect of government intervention in a market C. Effective demand is ability and willingness to pay D. The price mechanism may increase competition	1	

16	**b**	**ii**	***Using information from the case study identify two factors that may have led to the increase in car travel over the period shown in Fig.1.***		
			Award 1 mark per point for: - increase in population - rise in GDP\ national income - increase in price of bus travel\ fall in subsidies for bus travel - rise in car ownership	2 (AO2x2)	Do NOT accept price of unleaded petrol as this would lead to a fall in demand. Answers must relate directly to factors in the case study.

16	**c**		***Explain what is meant by the 'income elasticity of demand'***		
			Responsiveness\sensitivity of **quantity demanded** to a change in income (2)	2 (AO1x2)	For 2 marks "quantity demanded" is required. Correct equation $\frac{\text{Percentage change in } \mathbf{QD}}{\text{Percentage change in income}}$ (1)

		ii	Correct calculation 1% (2) Correct method with incorrect answer. (1)		Percentage change in QD of car travel = - 0.1(1) -10% 1 or -1% (1)

	b	**ii**	***Calculate the percentage increase in avocado prices in the UK from 2009 to 2016.***		
			Price in 2009 - £0.80 Price in 2016 - £1. Increase = (20/80) x100 = 25%	2 (AO1x1) (AO2x1)	Give 1 mark for identifying the prices – allow up to +/-5p variation for reading off the graph Give 1 mark for the correct answer.

	d		***Using information from the case study, state and explain one factor that has increased world demand for avocados.***		
			Accept: Identification of a factor shifting demand (1 mark) • change in tastes\preferences or reference to advertising • change in (real) income Example from case study (1 mark) e.g. • celebrity endorsement • rise in standard of living • avocados have health benefits	2 (AO2 x2)	1 mark max for quoting from the case study

	e	**i**	***What is meant by 'income elasticity of demand'?***		
			Income Elasticity of Demand (YED) measures the responsiveness of quantity demanded to a change in income.	2 (AO1x2)	Award 1 mark for awareness that demand changes with income Award 1 mark for the responsiveness of demand to a change in income. Award 1 mark for %change in Qd/% change in income

16	**(b)**	**(i)**	**Using Fig. 2, If the UK Government introduces a tax so that there is a 50% increase in the total electricity price in 2018 compared to 2017, what would the price per kilowatt hour (kWh) in the UK?** 15p+7.5p (1) = 22.5p (2)	**2** (AO1x1 AO2x1)	Allow reasonable range 21p – 24p (price of 14p – 16p increased by 50%) **Quantitative skills rewarded in this question**

16	**(b)**	**(iii)**	**Explain why money is used as a medium of exchange to pay for electricity.** Without money goods and services would need to be exchanged directly/barter system/ require a double coincidence of wants (1). Without money it would be very difficult and inefficient to undertake transactions (1)	**2** AO2x2	One mark for any explanation about double coincidence of wants or barter system. One mark for why a barter system would not work well or why money would be more efficient.

16	**(b)**	**(i)**	**Using the information in the case study, explain why there was an increase in demand for flour.** During lockdown (1) there was an Increase in trend for baking at home (1)	**2** (AO1x1 AO2x1)	Give 1 mark for using the information e.g. 37% had made bread / 27% had baked a chocolate cake. Give 1 mark for a valid explanation

16	**(b)**	**(ii)**	**Explain what the price elasticity of supply is likely to be for flour.** The price elasticity of flour is likely to be relatively inelastic (1) as it takes some time to grow wheat therefore it is difficult to quickly change the quantity supplied in response to a change in price (1)	**2** (AO1x1 AO2x1)	1 mark for inelastic 1 mark for reason why

16	**(b)**	**(iii)**	**Using the information in the case study, explain what impact the change in demand for yeast would have had on Red Star Yeast's producer surplus.** Price increases leading to a rise in producer surplus (1) because yeast sales have increased (by 647%) over the last year (+1)	**2** (AO1x1 AO2x1)	One mark for relevant data from Extract A. One mark for increase in producer surplus. Accept a diagram showing increase in price and producer surplus (1)

Question			Answer	Mark	Guidance
16	(b)	(i)	**Using Fig.2, calculate the percentage increase in the number of people who signed up for Veganuary from 2017 to 2021** (510000 - 50 000) /50 000 (1) x 100 = 920%(2) Correct method (1)	2	Annotate with ✔ Accept figures between 505 000 and 515 000 920% or 920 alone is worth 2 marks Award 1 mark (if student has the correct calculation and has not multiplied by 100) **Quantitative skills rewarded in this question**

Question			Answer	Mark	Guidance
16	(b)	(ii)	**Using the income elasticity (line 25), explain how a fall in income will affect the demand for oat milk** A fall in income of 10% will lead to a larger fall in demand for oat milk of 18% (2). Demand for oat milk will fall (1) proportionally more than the fall in income (1).	2	YED is 1.8 Annotate with ✔

Question	Answer	Mark	Guidance

Question			Answer	Mark	Guidance
16	(d)	(i)	**Using the value of cross elasticity of demand (lines 20-21), explain the relationship between oat milk and dairy milk.** XED is positive therefore both products are substitutes/competitive demand (1). Value is 0.23 therefore relationship is weak (1).	2	Annotate with ✔ Accept explanation of the meaning of substitutes: Increase in price of dairy milk will lead to increase in demand for oat milk (1)

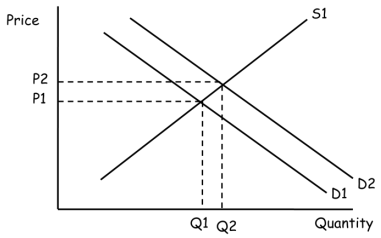
Question	Answer	Mark	Guidance

16	**a**	**i**	**Calculate the amount spent on going to festivals between July 2014 and July 2015** £9b/108.5 = £82.95b	2 (AO1x1) (AO2x1)	2 marks for correct answer including £bn Award 1 mark if correct method or correct answer with no £bn **Quantitative skills rewarded in this question**

16	**b**	**i**	**Using information in the case study (but excluding price) explain one reason why there has been an increase in demand for tickets at the Green Man festival** Better weather (tastes\seasonal factors) this means that more consumers are willing to go to festivals. Improved transport (availability of complements) this makes it easier for consumers to get to festivals	2 (AO1x1) (AO2x1)	Do **not** accepts factors that affect demand that are not in the case study. One mark for identifying the factor AND one mark for linking it to a factor OR how it will lead to an increase in demand.

16	**b**	**ii**	**Using Figure 2 describe what happened to the time taken to sell Glastonbury tickets between 2010 and 2014.** The time taken to sell tickets has fallen from 12 hours to 1 hour and 27 minutes	2 (AO1x2)	1 mark for 'fall' 1 mark for times from the data Award 2 marks for - reduction of 10hours 33 minutes.

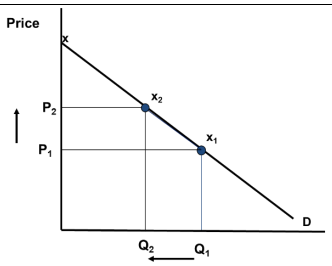
Question			Answer	Marks	Guidance
16	(e)		***Using information in the case study, calculate, in pounds, how much more the UK government spent on healthcare and education than on defence in 2016.***		
			£123.648bn (3) 123.648 (2) £170.752bn - £47.104bn (2) Spending on education and health care = 29% of £588.8bn = £170.752bn (1) **Or** Spending on education = 23% of £588.8bn = £135.424bn (1) **Or** Spending on health care = 6% of £588.8bn =£35.328bn (1) **Or** Spending on defence = 8% of £588.8bn = £47.104bn (1) **Or** Correct method i.e. 29% of… minus 8% of…(1) OFR	3 (AO1x2 AO2 x1)	Three marks for the correct answer with £ and bn Two marks for correct method with figures (Education+ Health – Defence) One mark for total spending on education/ healthcare/defence must have £ and bn

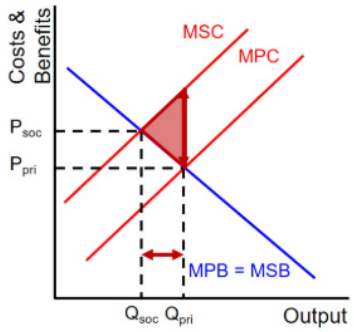
16	**e**		Up to 3 marks for a correct diagram: Correct axis labels – price and quantity (1) Demand curve shifting to the right (1) Original and new equilibrium points. (1) Explanation (1) An increase in the population may increase demand for bus travel. **Or** Price and quantity has risen.	4 (AO1x1) (AO2 x3)	

16	**(b)**		***State and explain two factors that might lead to an increase in the cost of replacing Trident.***		
			Accept any factor that might lead to a decrease in supply e.g. increased cost of raw materials; higher wage costs; a rise in interest rates\cost of capital; lower productivity; diseconomies of scale followed by a clear explanation as to how this might lead to a rise in costs of production.	4 (AO1x2 AO2x2)	Award 1 mark for identification of relevant factor (up to 2) and one mark for application i.e. why this will increase costs of production\cause a reduction in supply for submarines.

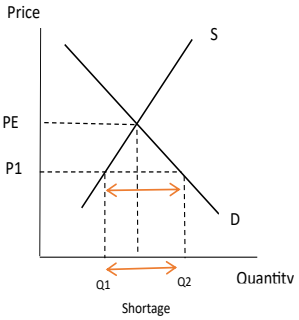
16	**(c)**		***Using defence as an example, explain two characteristics of a public good.***		
			Accept (2 from) non-rivalry/non-excludability/non-rejectability and additional mark for application to defence	4 (AO1x2 AO2x2)	Award 1 mark for (each) characteristic and second mark for clear link to show how defence demonstrates the characteristic. Also accept zero marginal cost.

	b	**i**	***Calculate the percentage of world output supplied by Mexico in 2014.***		
			Accept Total world production = 4335974 tonnes Mexico = (1520695/4335974) x 100 = 35%	4 (AO1x2) (AO2x2)	Give 1 mark for correct world production Give 1 mark for correct Mexico production Give 1 mark for the calculation Give 1 mark for the correct answer

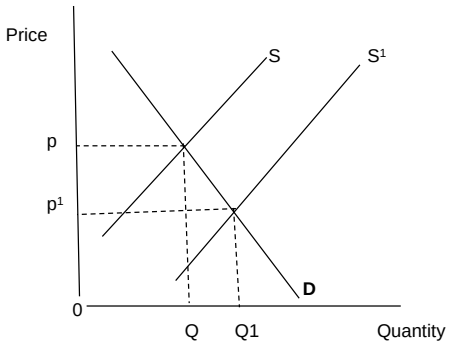
	c		***Using an appropriate diagram(s), show how consumer surplus would be affected by the imposition of a tax on avocados.***		
			Increase in price (1 mark) stated or shown on diagram. Tax will reduce consumer surplus (1 mark) Marks for diagram: Area of changed consumer surplus identified (2 marks) OR Consumer surplus before tax (1 mark) Consumer surplus after tax (1 mark)	4 (AO1x2) (AO2x2)	 Old consumer surplus P1,xX1. New consumer surplus P2,xX2 . Do not accept diagrams that shift demand curve or do not label the demand curve.

16	(c)		**Using a diagram, explain the costs experienced by the residents of Lancashire due to the extraction of shale gas.** **Up to 3 marks for a diagram:** • Accurate labelling of axes and MPB and MPC curves (1) • Accurate labelling of MSC curve (1) • Clear identification of external cost /MEC Or original and new equilibrium points. (1) Welfare loss to society as the marginal social cost is greater than the marginal social benefit (1) due to the increase in pollution / earth tremors.(1)	**4** (AO1x2 AO2x2)	Accept horizontal axis label of output or quantity  **Quantitative skills rewarded in this question**

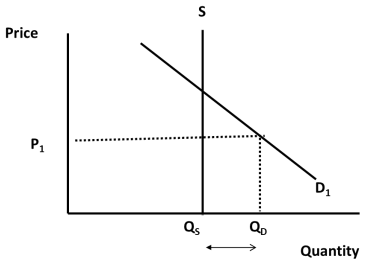
16	(d)	(ii)	**Using the information provided, explain two benefits of government intervention in the energy market.** Reduce negative externalities/ more likely to achieve the social optimum output (1) due to use of taxes in the electricity industry (1) Fairer/lower prices for consumers (1) due to price capping by OFGEM for energy tariffs (1) Lower prices for consumers (1) due to subsidies for nuclear/cleaner energy (1)	**4** (AO1x2 AO2x2)	Maximum of 2 marks for any policy

16	(c)	**Using a diagram, explain the disequilibrium that existed in the flour market in 2020.** **Up to 3 marks for a diagram:** • Accurate labelling of axes (1) • Accurate labelling of curves (1) • Clear identification of excess demand (1) At price P1, quantity Q1 is supplied but market demand is Q2 so there is a market shortage of Q2 minusQ1. (1) **OR** Price is below equilibrium there is excess demand/ QD> QS.	**4** (AO1x2 AO2x2)	 **Quantitative skills rewarded in this question.**

16	**(d)**	**Explain how a buffer stock system can be used to regulate the market supply of a product such as flour.** If demand exceeds supply (1) the buffer stock can sell the product/increase supply (1) If supply exceeds demand (1) the buffer stock can buy the product/ reduce supply. (1) **OR** The buffer stock works by intervening in the market by buying and selling the *product commodity*. (1)	**4** (A01x2 A02x2)	Give up to 1 mark for a clear explanation of what is meant by a buffer stock system. A simple statement such as: surplus stock is stored for future use is worth 1 mark. Give 2 marks for application of how this would regulate market supply.

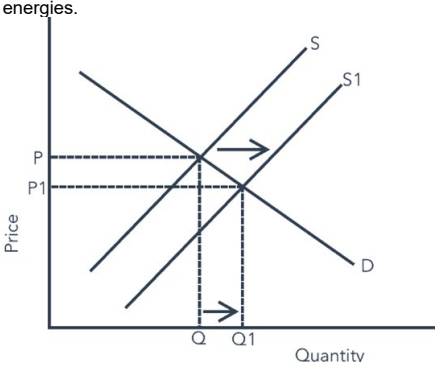
Question			Answer	mark	Guidance
16	(c)		**Using a diagram, explain how supermarkets may respond to the popularity of Veganuary** Up to 3 marks for a diagram: • Accurate labelling of axes (1) • Accurate labelling of curves with correct right shift of supply /demand curve (1) • Accurate label of old and new equilibrium (1) Up to 2 explanation marks: • Supermarkets will increase S from S to S1(1) • Price will fall P to P1(1) quantity consumed will rise Q to Q1(1) • Extend their supply (1) Accept : Prices may rise as demand has risen (1)	4	Annotate with ✔  Accept diagram showing outward shift in demand **Quantitative skills rewarded in this question**

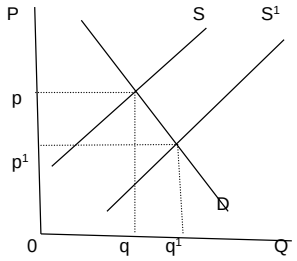
Question			Answer	Mark	Guidance
16	(d)	(ii)	**Explain how the change in demand for oat milk will affect the producer surplus of oat farmers.** Demand/sales for oat milk has increased (by **345%)** (1) leading to an increase in demand for oats (ingredient) (1) increasing price of oats (1) increasing producer surplus (1) Alternatively: Up to 3 marks for a correct diagram: • Accurate labelling of axes and shifted D curve (1) • Accurate labelling of original producer surplus (1) • Accurate label of new producer surplus (1)	4	Annotate with ✔ Candidate must recognise that oats are the raw material in the production of oat milk for 4

16	**c**		**The number of tickets to Glastonbury Festival is fixed at 190,000. Using an appropriate diagram, explain why there is disequilibrium in the market for Glastonbury Festival tickets.** **Up to 2 marks for diagram** Demand curve with label (1) Perfectly Inelastic supply curve with label (1) Excess demand shown on diagram e.g. on axes; using demand curve (1) **Up to 2 marks for explanation** Demand exceeds supply (1) Supply of tickets is fixed (1) Reference to case study (Figure 2) (1)	4 (AO1x2) (AO2x2)	 Axis must be labelled for diagram to be rewarded. **Quantitative skills rewarded in this question**

16	**d**		**Explain how the additional policing costs would affect the price of Glastonbury festival tickets** Policing costs are paid by the festival organisers (1) This will lead to an increase in costs of production. (1) This will lead to a fall in supply (1) and the price of tickets will rise (1)	4 (AO1x2) (AO2x2)	If no written explanation allow up to 2 marks for the supply decreases and price rise shown on a diagram. Award 1 mark for correct use of figures from the case study: • Policing costs are £287 000, **or** tickets will rise above £220.

	e	**ii**	***Evaluate, using an appropriate calculation, the significance of income elasticity of demand for avocados from 2012 to 2017.***		
			Level 3 (7-10 marks) **Good** – **strong** analysis of the significance of income elasticity of demand (YED). **Good** analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant calculation(s) are predominantly correct and linked to the analysis. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant calculation(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any calculations must be integral to the analysis. **Good - strong** evaluation of the significance of YED estimates, weighing up both sides/comparing alternatives. **Strong** evaluation should include a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 2 (4-6 marks)** **Reasonable** analysis of the significance of income elasticity of demand (YED). There is correct analysis largely in the form of single links. These address the question **but** are not developed into a clear chain of reasoning. Any relevant calculation(s) may not be linked to the analysis. **Reasonable** evaluation of the significance of YED estimates, considering both sides/comparing alternatives.	10 (AO2x1) (AO3x4) (AO4x5)	One starting point is to calculate the income of elasticity of demand for avocados from 2012 to 2017. This is 184\20.48= +8.98. This means that the good is normal because income and QD are positively related. The estimate is elastic so it may be considered a luxury good. This figure is significant for avocado producers who should increase supply at times of rising income. In a recession there may be a relatively large fall in demand for avocados. However another factor may have a more significant effect on demand such as tastes or the price of substitutes. Candidates may also consider YED may also change at different times of the year. This is only an estimate and may be based on inaccurate\out of date information.

16	**(e)***		**Evaluate, using an appropriate diagram(s), the effects of an increase in the supply of alternative greener energy on the electricity market.** **Level 3 (7-10 marks)** **Good** – **strong** analysis of the impact of an increase in the supply of a substitute on the electricity market. Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Good - strong** evaluation of the impact of an increase in the supply of a substitute on the electricity market weighing up both	**10** (AO2 x1 AO3 x 4 AO4 x5)	As supply of alternative energies such as wind, nuclear and solar increase, consumers are more likely to begin using these energies where possible. As more firms supply cleaner energy for example due to government subsidies or cheaper production methods, the supply curve will shift to the right for greener energy. This may lead to a fall in prices as shown in the diagram to P1 and encourage more people to make use of these cleaner energies. 

16	(e)*	**Evaluate, using an appropriate diagram(s), the effectiveness of a government policy that can be used to encourage UK flour millers to increase supply.** **Level 3 (7-10 marks)** **Good** – **strong** analysis of the effectiveness of a policy on the behaviour of flour mills. Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Good - strong** evaluation of the effectiveness of a policy on the behaviour of flour mills. Strong evaluation should include a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 2 (4-6 marks)** **Reasonable** analysis of the effectiveness of a policy on the behaviour of flour mills. There is correct analysis largely in the form of single links. These address the question **but** are not developed into a clear chain of reasoning. Any	**10** (AO2 x1 AO3 x 4 AO4 x 5)	One possible policy would be for the government to offer subsidies to mill owners. This subsidy could be to encourage: • Extension of the mills to increase output/capacity • Installation of more efficient capital. An alternative policy would be to reduce the level of indirect tax charged on flour production therefore reducing the costs of production. All of these policies would shift the supply curve from S to S^1. as shown in diagram 1. This would have the advantage, also, of lowering the price from p to p^1 as well as increasing the quantity from q to q^1. **Diagram 1**  Increasing capacity, however, takes time and would not solve the immediate problem. It also assumes that the owners expect the increased demand to continue. If not, they may not be willing to create extra production capacity which may not be needed in a few years' time. Equally, more efficient machinery still needs people to at least know how to operate it, but skilled workers may not be easily found or will require time to be trained. There is no guarantee that mill owners will use the subsidy to increase supply

16e* Evaluate, using an appropriate diagram(s), the effects on farmers of an increase in demand for vegan products.

Question 16e Guidance

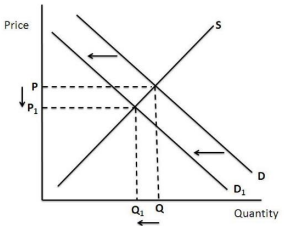
The side of the argument presented first should be credited as Analysis with the other side credited as Evaluation.

Application

- cross price elasticity of demand between oat and dairy milk is 0.23/substitutes/competitive demand
- oat milk sales rose by 345% between 2020 and 2022
- consumers are willing to pay a premium price for products that offer health benefits.

Analysis

A negative impact on meat/dairy farmers as demand may fall for these substitutes



- demand will shift to the left (D to D1) and falling quantity sold (Q to Q1) will cause a reduction in price (P to P1) decreasing farmers revenue
- there may be a fall in labour required
- animal farmers may be incentivised to diversify into crops used to produce dairy alternatives reducing supply of animal products.

Accept a PPF diagram illustrating the move from dairy to vegan output and opportunity cost impacts.

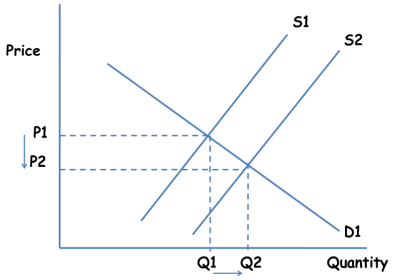
Evaluation

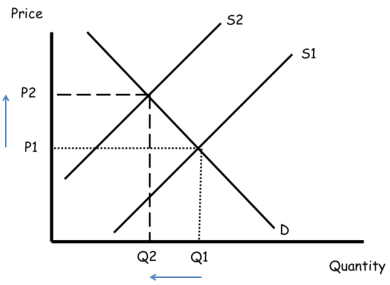
A positive impact on farmers growing crops such as oats with increased demand for their products.

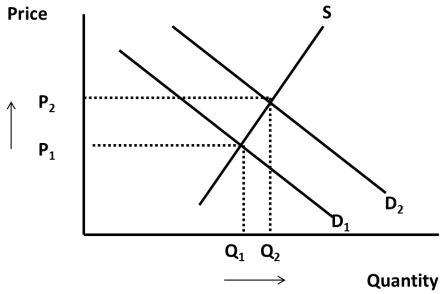
16	**e**		**Evaluate the usefulness of price elasticity of demand for tickets to the organisers of the Green Man festival.** **Level 3 (7-10 marks)** **Good** – **strong** analysis of price elasticity of demand (PED). Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Good - strong** evaluation of the limitations of PED estimates, weighing up both sides/comparing alternatives. Strong evaluation should include a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 2 (4-6 marks)** **Reasonable** analysis of price elasticity of demand (PED). There is correct analysis largely in the form of single links. These address the question **but** are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.	10 (AO2x1 AO3x4 AO4x5)	**Examples of analysis may include:** PED is 23/ (50/300) = (-)1.385 which is elastic. When PED is elastic quantity demanded rises more than proportionally when there is a fall in price. When price is decreased, total revenue will increase, therefore the organisers should have reduced price. PED is useful as the organisers need to be able to predict the impact of price changes on ticket sales. This will help them to know how much to reduce price by to sell as many tickets as possible. **Examples of evaluation could include:** TR may change but effect on profit is unknown as no information on costs. PED calculations are estimates which may be inaccurate/unreliable. PED is based on historical data which may not hold true over time. PED varies along the demand curve therefore reducing price further may cause PED to become unitary or inelastic. Other factors affect demand e.g. weather meaning final change in revenue/demand/ticket sales uncertain.

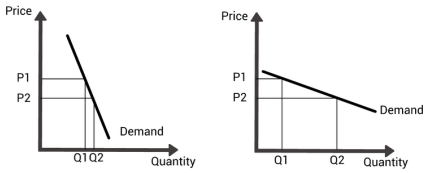
17			**Level 4 (16-20 marks)** **Good** knowledge and understanding of the economic effects of moving from a planned (state controlled) economic system to a free market system. **Strong** analysis of the effect on (allocative) efficiency and consumer welfare. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of increased reliance on the price mechanism to allocate resources and a conclusion drawn weighing up both sides\comparing alternatives and reaching a supported judgement *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the effect of increasing use of the price mechanism to allocate resources. **Good** analysis of the effect of the increased use of the price	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Candidates may argue that a move towards a (free) market system is likely to see higher levels of efficiency because firms are producing what consumers want. However there needs to be some recognition that markets and the price mechanism have limitations and may not result in an efficient allocation of resources, without some government intervention. It is possible though not necessary for candidates to consider the disadvantages of a planned economy in terms of costly bureaucracy; failure to respond to changes in tastes and preferences; unacceptable levels of state intervention. There may be a clear illustration of how the price mechanism works to signal, ration and provide incentives for producers to provide the goods and services that consumers want. Arguments against a free market system might include monopoly power; externalities; information failure; under-provision of merit goods (e.g. health and education); failure to supply public goods (e.g. defence); unemployment and income inequality and how far these might offset any gains. In a free market system a change in consumer preferences which increases the demand for a good /service is signalled by a shift in the demand curve from D1 to D2. This leads to a rise in price from P1 to P2.

18			**Level 4 (16-20 marks)** **Good** knowledge and understanding of the effect of a tax in reducing consumption of a good that is over-consumed **Strong** analysis of the effect on supply (i.e. higher costs of production), equilibrium quantity and allocative efficiency/MSC=MSB/welfare 'gain'. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of a tax and conclusion drawn weighing up both sides/comparing alternatives and reaching a supported judgement *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the effect of a tax in reducing the consumption of sugary drinks. **Good** analysis of the effect of the decrease in supply on	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Candidates may argue that indirect taxes are effective at reducing consumption if demand is elastic and therefore a relatively small rise in price (tax) will lead to a relatively large decrease in consumption of sugary drinks and therefore an output that is closer to the social optimum (reduced market failure) and reduces welfare loss It is possible, though not necessary, for candidates to consider an alternative policy. This could qualify as analysis or evaluation, as appropriate, provided that the alternative (e.g. provision of information about the health risks associated with consuming sugary drinks) is assessed relative to a tax on sugary drinks. There may be a clear illustration of the mechanics of indirect taxes: increasing costs of production, reducing supply, raising price and the consequent contraction in demand, leading to a lower output that is closer to the social optimum, so reducing market failure (over consumption of sugary drinks). Arguments in favour might refer to reduced production of demerit goods\negative externalities; positive externalities from increased consumption of (relatively cheaper) healthier alternatives; revenue raised from tax (which may be used to help address the market failure in other ways e.g. information provision) Arguments against include: depends on PED (NB a tax will be most effective at reducing consumption if PED is elastic.) Incidence of tax may fall on producers (affecting competitiveness\employment); indirect taxes are regressive

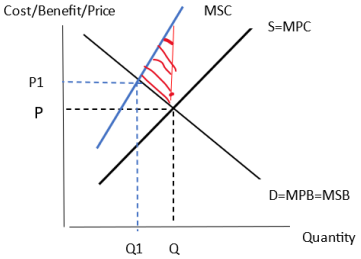
17			**Level 4 (16-20 marks)** **Good** knowledge and understanding of the economic benefits of state provision of health care. **Strong** analysis of the effect of state provision on (allocative) efficiency and under-consumption/production of healthcare. **Strong** analysis will have **consistently** well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of state and or private provision of healthcare in tackling market failure caused by under production\consumption of healthcare and a conclusion drawn weighing up both sides\comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the effects of state provision of healthcare. **Good** analysis of the effect of state provision on (allocative) efficiency and under-consumption/production of healthcare. There is correct analysis in the form of developed links. These links are developed through a clear chain of	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Candidates may argue that state provision increases supply and may lead to increased consumption\production as equilibrium (socially desirable) output is greater than market equilibrium. However, there are problems with\limitations to state provision and\or private provision may have advantages. There may be a clear illustration of the mechanics of state provision decreasing costs of production, increasing supply, reducing price and the consequent extension in demand, leading to a higher output that is closer to the allocatively efficient output, so reducing market failure (under consumption of health care). Candidates can clearly illustrate on a diagram the effect of a state provision showing • Rightward shift in supply curve • Old and new market equilibrium • Effect on market failure e.g. comparison of original market equilibrium with new market equilibrium (social optimum). 

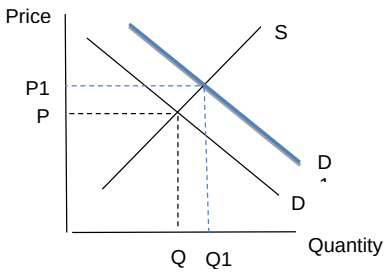
17			**Level 4 (16-20 marks)** **Good** knowledge and understanding of subsidies as a method of government intervention. **Strong** analysis of the effects of reducing the subsidy for university education. **Strong** analysis will have **consistently** well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of reducing the subsidy to university education, and a conclusion drawn weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of subsidies as a method of government intervention. **Good** analysis of the effect of reducing the subsidy for university education. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. The relevant diagram(s) are present, predominantly correct and linked to the analysis	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Candidates may argue that the effect of a fall in the subsidy would be to increase costs of providing a university degree. This would reduce supply leading to a rise in price, a contraction in demand and a fall in equilibrium quantity of university education. It is possible, though not necessary, for candidates to consider education as a merit good which will be under-consumed because consumers do not have full information about its benefits. Candidates can clearly illustrate on a diagram the effect of a decrease in a subsidy showing • Leftward shift in supply curve • Old and new market equilibrium 

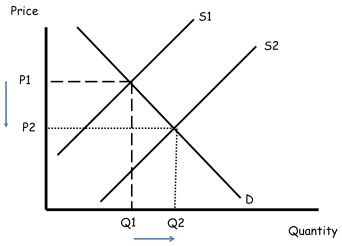
18			**Level 4 (16-20 marks)** **Good** knowledge and understanding of the effect of advertising on a market. **Strong** analysis of the effect of advertising on a market. **Strong** analysis will have **consistently** well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of advertising on a market, and a conclusion drawn weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the effect of advertising on a market. **Good** analysis of the effect of advertising on a market. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Candidates may argue that a rise in advertising will lead to an increase in demand for Coca Cola because of a change in consumer tastes. This will lead to a rise in price, an extension in supply and an increase in equilibrium quantity of Coca Cola consumed. Candidates can clearly illustrate on a diagram the effect of an increase in advertising expenditure • Rightward shift in the demand curve • Old and new market equilibrium  The effect of an increase in advertising expenditure is to increase demand from D1 to D2. Price rises from P1 to P2, there is an extension in supply and the new market equilibrium quantity is at Q2.

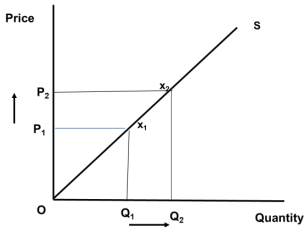
Question		Answer	Mark	Guidance
17*		**The price elasticity of demand for bread is inelastic while for designer watches it is elastic.** **Evaluate, using an appropriate diagram(s), the factors that determine the price elasticity of demand for a product.** **Level 4 (16-20 marks)** **Good** knowledge and understanding of the factors affecting the price elasticity of demand for a product. **Strong** analysis of the factors affecting price elasticity of demand for a product will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the factors affecting the price elasticity of demand for a product. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the factors affecting the price elasticity of demand for a product. **Good** analysis of the factors affecting the price elasticity of demand of a product. There is correct analysis in the form of developed links. These links	**20** (AO1*3 AO2*4 AO3*6 AO4*7)	Identify factors that determine PED for a product: necessity/luxury, number of substitutes, branding, addiction, percentage of income spent on good and time. Price elasticity of demand shows the percentage change in demand when the price has been increased or decreased. Numeric example of percentage changes in demand relative to prices for elastic or inelastic products.  **Analysis** • The first graph, above, shows a product with inelastic demand, such as a necessity like bread. Here, if the price is increased from P2 to P1, the percentage change in quantity is far smaller than the percentage change in price and quantity purchased falls from Q2 to Q1. Consumers are less price sensitive and therefore will continue to buy the product as prices increase as they have a need for it. • The second graph shows a product with elastic demand such as a luxury product, like Rolex watches. Here, if the price is increased from P2 to P1, the percentage change in quantity is far bigger than the percentage change in price and quantity purchased falls from Q2 to Q1. Consumers are more price sensitive because it is not needed.

Question		Answer	Mark	Guidance
18*		**Division of labour and specialisation is used in many firms in Germany, a country which specialises in high value manufacturing.** **Evaluate, using an appropriate diagram(s), the role of specialisation and division of labour in addressing the problem of scarcity.** **Level 4 (16-20 marks)** **Good** knowledge and understanding of specialisation and division of labour [and their role in addressing the problem of scarcity]. **Strong** analysis of the role of specialisation and division of labour in addressing the problem of scarcity will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the role of specialisation and division of labour in addressing the problem of scarcity, weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of specialisation and division of labour [and their role in addressing the problem of scarcity]. **Good** analysis of the role of specialisation and division of labour in addressing the problem of	**20** (AO1*3 AO2*4 AO3*6 AO4*7)	• Resources are limited but people's wants are unlimited. Therefore, choices need to be made as to how to allocate scarce resources. • The production possibility curve shows the maximum combination of different goods and services a country can produce if all resources in the economy are efficiently and fully utilised. The production possibility curve, below, shows that when a country is producing on the PPC it is efficiently utilising its resources to produce the maximum output. • If the country is producing inside the PPC, scare resources are not being used to their maximum efficiency to produce the most efficient level of output. **Analysis** • Division of labour is when a manufacturing process is broken down into several small tasks and workers specialise in a task e.g. fitting a wheel on a car. Repetition improves efficiency improving productivity. In addition, capital resources can be shared therefore, division of labour helps ensure scare resources are used efficiently to produce the maximum output. • Firms in an economy may also specialise. For example, a firm may focus solely on producing car wheels and another firm may focus on car seats. The business will therefore improve their knowledge of the production process resulting in lower waste/rejects. • Countries may also specialise in a product or service in which they have a comparative /absolute advantage. For example, Spain benefits from hot weather and therefore specialises in fruit and vegetables which it can trade with Germany who specialises in high value manufacturing. Both countries benefit as total output rises reducing the problem of scarcity. • Over time, a country can produce more and the PPC can shift outwards to the right

Question		Answer	Mark	Guidance
17*		**Palm oil companies have been destroying rainforests and habitat for wildlife because they want more land to grow palm oil trees. Around 24 million hectares of rainforest were destroyed in Indonesia between 1990 and 2015 - an area the size of the UK.** **Evaluate, using an appropriate diagram(s) the effectiveness of imposing a tax on palm oil production to reduce negative externalities.** **Level 4 (16-20 marks)** **Good** knowledge and understanding of how a tax could be imposed to reduce negative externalities. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effectiveness of taxation to reduce negative externalities reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.*	**20** (AO1*3 AO2*4 AO3*6 AO4*7)	Explanation of the negative externalities associated with Palm oil production. If a good has a negative externality, without a tax, there will be over-consumption (Q1 where D=S) because people ignore the external costs.  Social efficiency is where MSC = MSB at P1 Q1 **Analysis** • Taxes on negative externalities are intended to make consumers / producers pay the full social cost of the good. This reduces consumption, reduces the negative externality, and creates a more socially efficient outcome.

Question		Answer	Mark	Guidance
18*		**For decades China used a planned economy to allocate resources before transitioning to an economy which incorporates some functions of a market economy.** **Evaluate, using an appropriate diagram(s), whether a country would benefit from moving from a planned to a market economy** **Level 4 (16-20 marks)** **Good** knowledge and understanding of advantages and disadvantages of different economic systems. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of different economic systems, weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of advantages and disadvantages of different economic systems. **Good** analysis of benefits of various economic systems. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any	**20** (A01*3 A02*4 A03*6 A04*7)	Under a planned economy, the government makes all the major economic decisions such as how much of each good to produce. In the market economy all economic decisions are left to the free market with no government intervention. Many planned economies, such as China have begun to make the transition to a mixed economy. **Analysis** **Market economies:** • In a free-market economy resources are allocative /productively efficient as market participants are driven by the profit motive. • There is a high level of innovation. • Prices tend towards the equilibrium price dependent on demand and supply of a good. Rising demand (D to D1) signals that more goods should be supplied as price rises from P to P1.  **Planned economies:** • Lack of price mechanism means governments generally have poor information about what to produce and therefore are unable to respond to consumer preferences. • Price controls lead to shortages of some good and surpluses of

17			**Evaluate, using an appropriate diagram(s), the effectiveness of reducing the tax on gym membership to encourage people to take more exercise** **Level 4 (16-20 marks)** **Good** knowledge and understanding of the effect of a fall in tax on gym membership **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of a fall in tax on gym membership weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of a fall in tax on gym membership. **Good** analysis of the effect of a fall in tax on gym membership. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	The effect of a fall in an indirect tax will be to reduce the cost of production for gyms. This will increase supply shifting supply from S 1 to S2.  This will lead to a fall in price (P1 to P2) an extension in demand and an increase in quantity consumed (Q1 to Q2). This means that more consumers have been incentivised to take up gym membership because the price has fallen. **Candidates may consider:** Gym membership could be considered as a good that creates positive externalities. If not enough consumers take out gym membership then the good will be under consumed and underprovided. This means that there is a market failure. The increase in consumption will mean that gym membership will be closer to the social optimum (i.e. MSC = MSB). This is because the increase in gym membership will create positive externalities e.g. less public spending on health (as fitness increases) and greater productivity. This is a benefit to

18			**Evaluate, using an appropriate diagram(s), the effect of an increase in energy prices on the producer surplus of energy supply firms.** **Level 4 (16-20 marks)** **Good** knowledge and understanding of the effect of a rise in price on producer surplus. **Strong** analysis will have **consistently** well-developed links through a **coherent** chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. **Strong** evaluation of the effect of a rise in price on producer surplus, weighing up both sides/comparing alternatives and reaching a supported judgement. *There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.* **Level 3 (11-15 marks)** **Good** knowledge and understanding of the effect of a rise in price on producer surplus. **Good** analysis of the effect of a rise in price on producer	20 (AO1x3) (AO2x4) (AO3x6) (AO4x7)	Producer surplus is the difference between the price that a producer is willing and able to supply at and the market price. A rise in price (from P1 to P2) will lead to an increase in quantity supplied (from Q1 to Q2) At P1 producer surplus is (O,P1,x1) . At P2 producer surplus is O,P2,x2. There has been an increase in producer surplus of P1,P2,x2,x1.  The effect of this increase will depend on the size of the price increase. If the price increase is large then this will have a bigger effect on quantity supplied leading to a bigger increase on the size of producer surplus. Whether 6% is large is unknown. The change in the size of producer surplus depends on PES. If PES is inelastic then the increase in the producer surplus will be smaller than if the PES was elastic. The above assumes a condition of ceteris paribus. If, for instance, the cost of producing energy rises then this might wholly or partially offset any gain in producer surplus from a price increase.