



Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

AS ECONOMICS

Paper 1 The Operation of Markets and Market Failure

Monday 13 May 2019

Morning

Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- the insert
- a calculator.

Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions in **Section A**.
- Answer **either** Context 1 **or** Context 2 in **Section B**.
- You will need to refer to the insert provided to answer **Section B**.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 70.
- The marks for questions are shown in brackets.
- No deductions will be made for wrong answers.

For Examiner's Use	
Question	Mark
Section A	
Section B	
TOTAL	



J U N 1 9 7 1 3 5 1 0 1

Section AAnswer **all** questions in this section.Only **one** answer per question is allowed.

For each answer completely fill in the circle alongside the appropriate answer.

CORRECT METHOD  WRONG METHODS    If you want to change your answer you must cross out your original answer as shown. If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. **0 1**

Which one of the following best describes the basic economic problem?

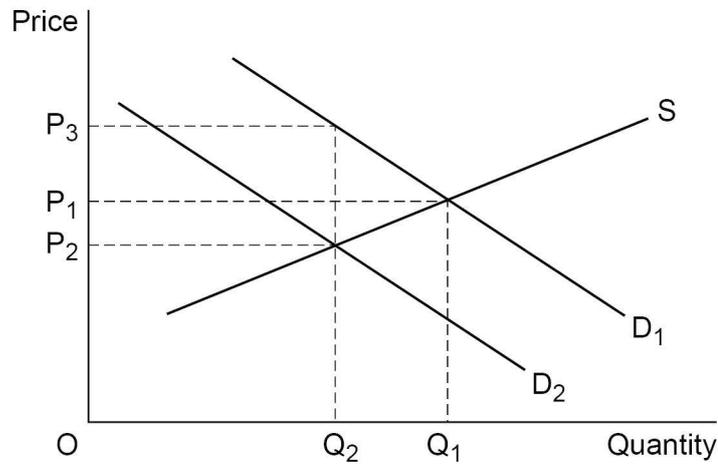
A Living standards are low for many people**B** Resources are being depleted too rapidly**C** Resources are scarce relative to needs and wants**D** Resources are unequally distributed**[1 mark]****0 2**

A rise in the price of blueberries from £8 to £10 per kg encourages growers to increase their supply from 12 kg to 21 kg each week. Other things remaining the same, this suggests that the price elasticity of supply for blueberries is

A 0.22**B** 0.33**C** 3**D** 4.5**[1 mark]**

0 3

The following diagram shows the free market supply (S) and demand (D_1) for a good when there is imperfect information. D_2 shows the level of demand if consumers had full information about the effects of consuming the good.



Which one of the following government policies is most likely to result in the social optimum level of consumption?

- A** A maximum price equal to P_3
- B** A minimum price equal to P_2
- C** A subsidy per unit equal to $P_1 - P_2$
- D** A tax per unit equal to $P_3 - P_2$

[1 mark]

0 4

Firms in the steel industry in an economy move abroad to where costs are lower. The redundant steel workers are occupationally immobile. This situation represents a market failure because

- A** domestic steel production is replaced by imported steel.
- B** some factors of production will not be fully employed.
- C** there is no government provision of training schemes.
- D** there will be underproduction of a merit good.

[1 mark]

Turn over ►



0 5

A government plans to build a new road to bypass a small town. The table below shows the costs and benefits of two possible routes for the new road.

	'Blue route'	'Green route'
	£ million	
Private costs	44	34
Private benefits	72	46
External costs	9	8
External benefits	18	17

The government intends to choose the route that has the higher ratio of social benefits to social costs. This ratio (correct to one decimal place) is

A 1.5:1

B 1.7:1

C 2.0:1

D 2.1:1

[1 mark]

0 6

The market for crab sandwiches experiences an increase in the price and an increase in the output of crab sandwiches. Which of the following combinations of events is the only one that could have caused these changes?

A A fall in the price of tuna sandwiches and a fall in the price of crab

B A new tax on food packaging and a fall in labour productivity

C A rise in the price of prawn sandwiches and a rise in the price of bread

D New entry of firms into the sandwich market and a reduction in the minimum wage

[1 mark]



0 7

A construction firm uses workers, machines and raw materials to build new houses. One year the firm builds 20 more houses than in the previous year. It can be concluded that there must have been an increase in

A employment.

B production.

C productive efficiency.

D productivity.

[1 mark]

0 8

The following table shows the market shares of the five leading manufacturers in a particular industry.

Manufacturer	Market share (%)
Firm A	13
Firm B	24
Firm C	11
Firm D	15
Firm E	7
Others	30

If Firm A and Firm C combine to become one firm, what happens to the three-firm concentration ratio and the five-firm concentration ratio?

	Three-firm concentration ratio	Five-firm concentration ratio	
A	Falls	Falls	<input type="radio"/>
B	Falls	Rises	<input type="radio"/>
C	Rises	Falls	<input type="radio"/>
D	Rises	Rises	<input type="radio"/>

[1 mark]

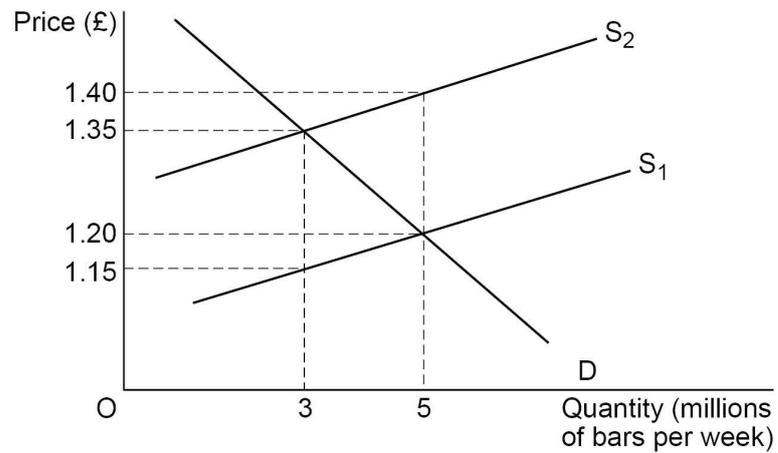
Turn over for the next question

Turn over ►



0 9

The following supply and demand diagram shows the impact of a government tax on chocolate bars.



The amount of tax revenue raised each week is

- A** £0.45 million
- B** £0.60 million
- C** £0.75 million
- D** £1.00 million

[1 mark]

1 0

Two large firms dominate the market for manufacturing rail track. This means that

- A** abuse of monopoly power will result in diseconomies of scale.
- B** barriers to entry are low as neither firm is a pure monopoly.
- C** neither firm has monopoly power but benefits from economies of scale.
- D** the two firms have monopoly power but may also compete.

[1 mark]



1 1

A clothes retailer has experimented with changing the prices of various items of clothing sold in their shop. The table below shows the different prices per item in 2 years.

	Year 1	Year 2
Socks	£6	£8
T-shirts	£15	£11
Trainers	£40	£42
Trousers	£33	£38

Other things being equal, which one of the following changes from **Year 1** to **Year 2** is the retailer most likely to experience?

- A** A decrease in revenue from socks if the price elasticity of demand is minus one
- B** A decrease in revenue from T-shirts if the price elasticity of demand is elastic
- C** An increase in revenue from trainers if the price elasticity of demand is inelastic
- D** An increase in revenue from trousers if the price elasticity of demand is elastic

[1 mark]

1 2

The benefit one person obtains from breathing clean air does not reduce the benefits other people can obtain from the clean air. This characteristic represents

- A** non-excludability of a public good.
- B** non-rivalry of a public good.
- C** optimum provision of a public good.
- D** the free-rider problem of a public good.

[1 mark]

Turn over for the next question

Turn over ►



1 3

A pizza takeaway raises the price of its pizzas by 5%, resulting in a 10% fall in demand for their pizzas. Also, the next-door fish and chip shop sees the demand for its food rise by 10%. Which one of the following combinations of elasticities represents these events?

	Price elasticity of demand for pizzas	Cross price elasticity of demand for fish and chips with respect to the price of pizza	
A	-0.5	0.5	<input type="radio"/>
B	-0.5	-0.5	<input type="radio"/>
C	-2	2	<input type="radio"/>
D	-2	-2	<input type="radio"/>

[1 mark]

1 4

The following table shows the price of spaghetti in 3 years.

Year	Price of spaghetti £ per 500 g
1	3.09
2	2.75
3	2.60

Over the 3 years, it can be concluded that there has been a fall in

- A the average cost of producing spaghetti.
- B the average revenue from sale of spaghetti.
- C the consumer demand for spaghetti.
- D the total revenue from sale of spaghetti.

[1 mark]



1 5

Which one of the following is a true statement about market structures?

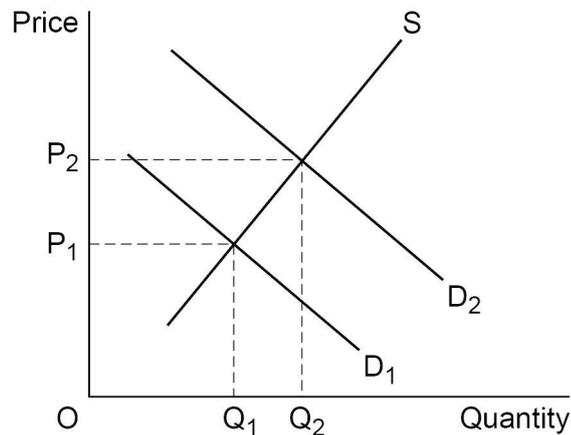
Market structures

- A** are partly defined by the number of firms in the market.
- B** are the rules imposed by governments which limit how firms behave.
- C** include concentrated markets but not competitive markets.
- D** include markets for goods but not markets for services.

[1 mark]

1 6

The following diagram shows demand and supply in the market for roses. The demand for roses shifts from D_1 to D_2 .



Other things remaining the same, it can be concluded that

- A** monopoly suppliers have pushed up the price of roses.
- B** the higher price of roses will cause demand to fall back to D_1 .
- C** the income elasticity of demand for roses is positive.
- D** there is greater incentive to supply roses.

[1 mark]

Turn over for the next question

Turn over ►



1 7

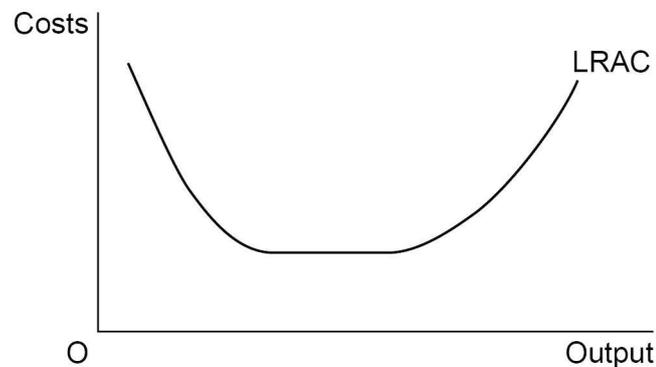
A government sets a maximum price below the current market price for rented housing. The likely long-run consequence is that

- A** fewer people can live in rented housing.
- B** the rationing function of prices will improve.
- C** there will be a fall in supply of owner-occupied housing.
- D** there will be excess supply of rented housing.

[1 mark]

1 8

The following diagram shows the long-run average cost curve (LRAC) for a firm.



From the diagram it can be concluded that

- A** average fixed costs will fall and then rise.
- B** economies of scale are present at some levels of output.
- C** the firm will inevitably experience diseconomies of scale.
- D** total costs must first fall and then rise.

[1 mark]



1 9

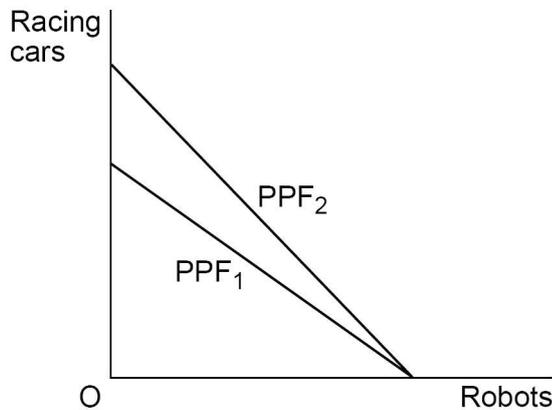
'Large pay bonuses received by top executives have caused income inequality to increase.' This statement

- A is an example of a normative statement.
- B is an example of an hypothesis that can be tested.
- C shows that income tax is not sufficiently progressive.
- D shows that the distribution of income is inequitable.

[1 mark]

2 0

An economy produces racing cars and robots. The economy's initial production possibility frontier (PPF₁) is shown in the diagram below.



The economy's production possibility frontier shifts to PPF₂ and as a result of this change the

- A number of racing cars that can be produced for each robot given up has increased.
- B opportunity cost of producing robots is now lower.
- C output of racing cars will be higher than the output of robots.
- D productive efficiency of producing robots has risen.

[1 mark]

20

**QUESTION 20 IS THE
LAST QUESTION IN SECTION A**

Turn over ►



Section B

Look at the insert and choose to answer **EITHER** Context 1 **OR** Context 2.

Answer **EITHER** Questions 21 to 26 in the spaces below

OR

Questions 27 to 32 on pages 23 to 32 of this answer booklet.

There is a total of 50 marks for either context.

Shade the circle below to indicate which context you have answered.

Context 0 1

Context 0 2

WRONG METHODS



CORRECT METHOD



EITHER

Context 1

Total for this context: 50 marks

PALM OIL

Use the insert provided to study **Questions 21 to 26** and **Extracts A, B and C**, and then answer the questions in the spaces which follow.

2 | 1 Define 'specialisation' **Extract B** (line 15).

[3 marks]



2	2
---	---

Extract B (lines 15–16) states: ‘Another important reason for the increased popularity of palm oil with growers is that it is the most productive oil crop...’

If 4 hectares of land yield 15 tonnes of palm oil, calculate, to **one** decimal place, the expected yield of sunflower oil from 6 hectares of land.

[4 marks]

Turn over for the next question

Turn over ►



2 **3**

Use **Extract A** to identify **two** significant features of the changes in the area used for certified sustainable palm oil production over the period shown.

[4 marks]

Feature 1 _____

Extra space _____

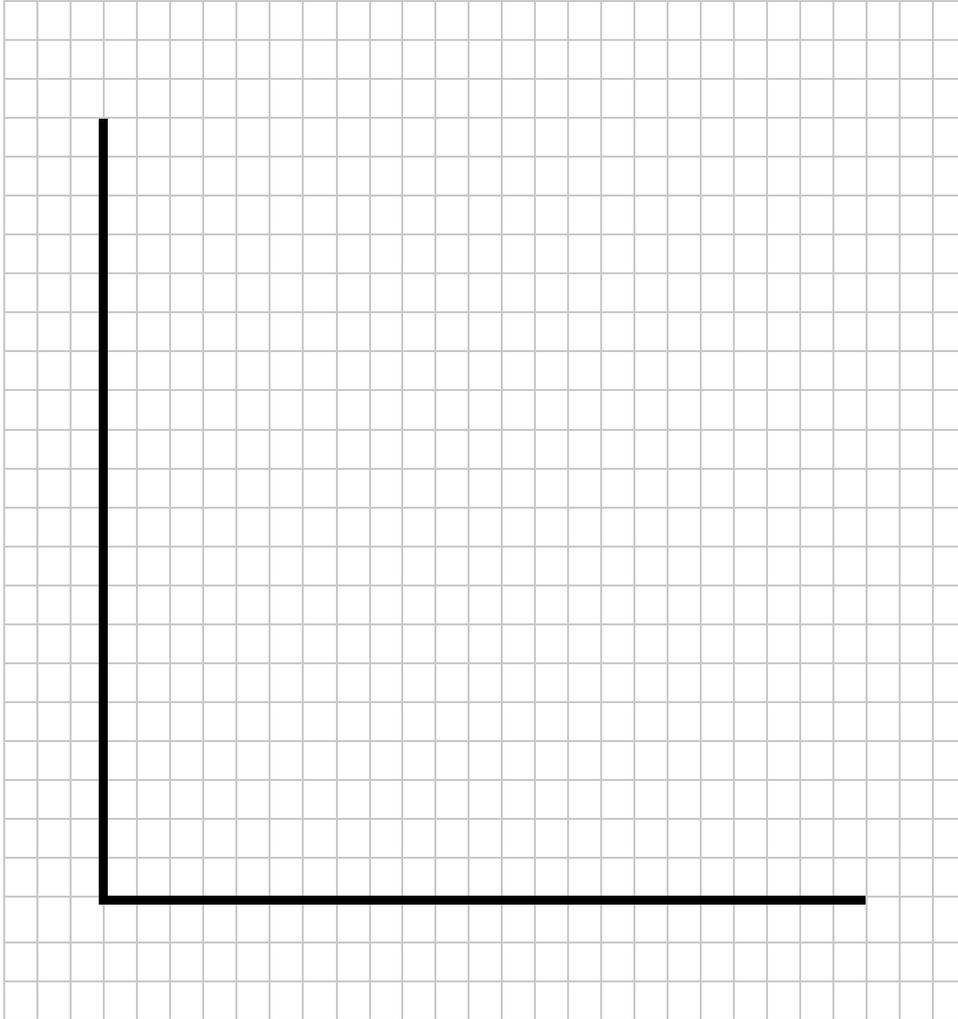
Feature 2 _____

Extra space _____



2 4**Extract B** (line 3) states: 'Palm oil can be used as a cheap substitute for butter'.

Draw a supply and demand diagram showing the effects on the market for butter of a fall in the price of palm oil.

[4 marks]**Turn over for the next question****Turn over ►**

Do **not** answer Context 2 if you have answered Context 1.

OR

Context 2

Total for this context: 50 marks

DENTAL CARE

Use the insert provided to study **Questions 27 to 32** and **Extracts D, E and F**, and then answer the questions in the spaces which follow.

2 7 Define 'competitive market' **Extract F** (line 17).

[3 marks]

2 8 **Extract F** (line 6) states: 'Currently, about 60 000 people are admitted to hospital each year because of tooth decay...'

If the population increases by 2.25% in the following year, other things being equal, calculate, to the nearest child, the number of children expected to be admitted to hospital because of tooth decay.

[4 marks]

Turn over ►



2 9

Use **Extract D** to identify **two** significant features of the number of courses of dental treatment (CoT) per 100 000 population in 2016–17.

[4 marks]

Feature 1 _____

Extra space _____

Feature 2 _____

Extra space _____

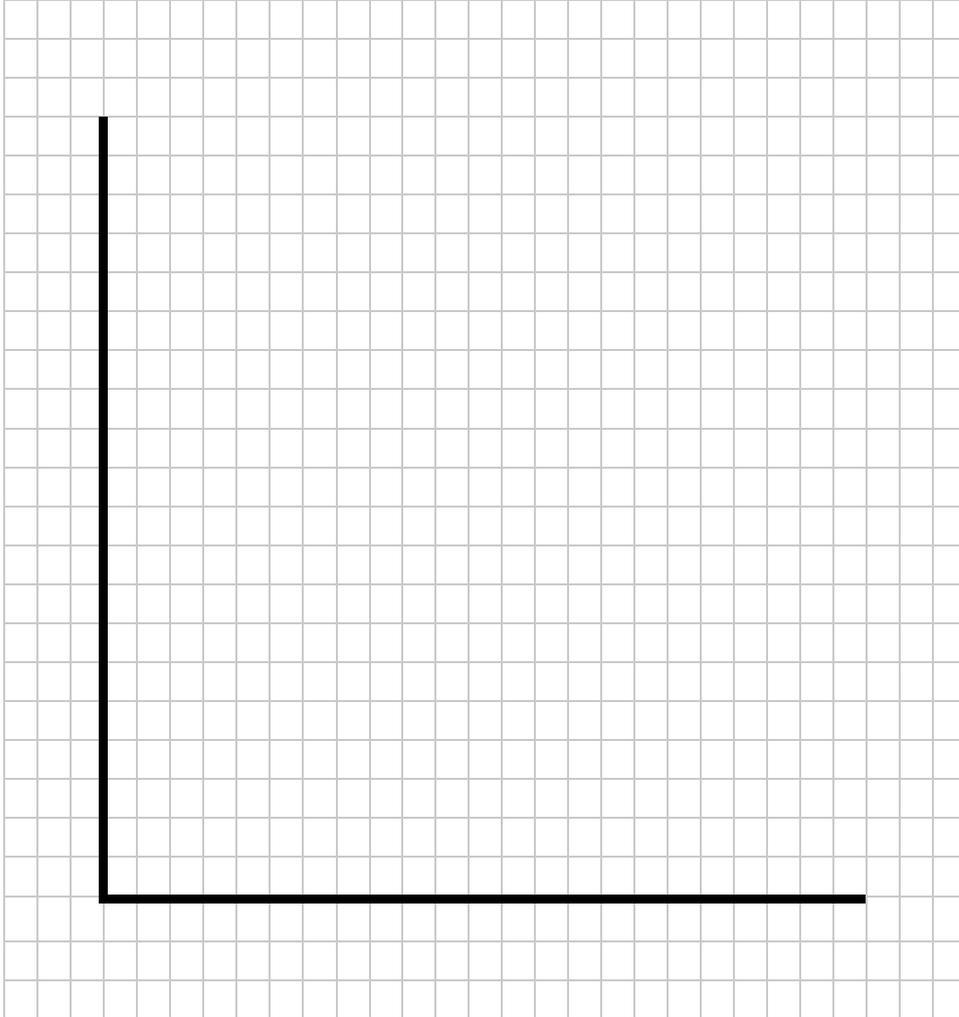


3 0

Extract F (lines 13–14) states: ‘Prices for many dental treatments in Hungary, for example, are about half those of the UK’.

Draw a supply and demand diagram showing the effects on the market for UK dental care of a fall in the price of dental care abroad.

[4 marks]



Turn over for the next question

Turn over ►



AS ECONOMICS

Paper 1 The Operation of Markets and Market Failure

Insert

DO NOT WRITE ANY ANSWERS IN THIS INSERT. YOU MUST ANSWER THE QUESTIONS IN THE ANSWER BOOKLET PROVIDED.

CONTEXT 1: PALM OIL

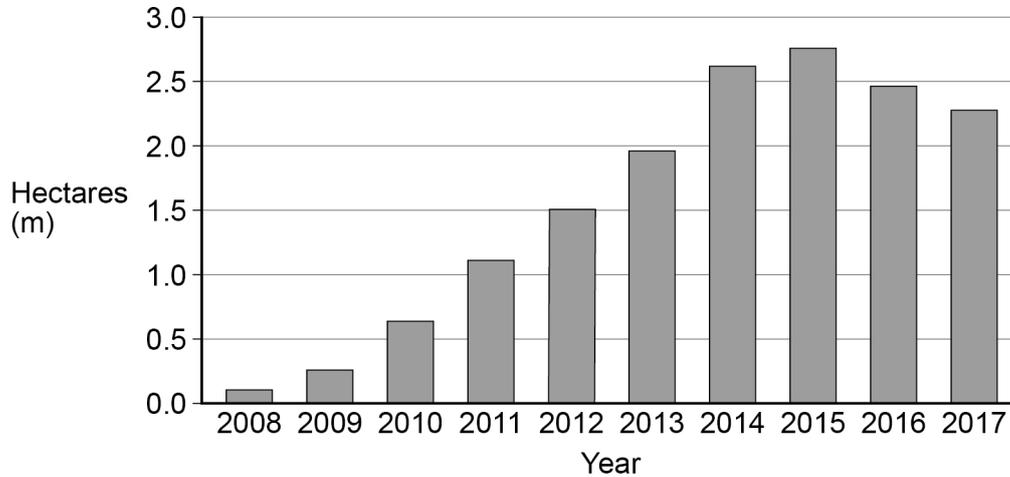
Questions 21 to 26

- **Extract A:** Certified sustainable palm oil production area (millions of hectares), 2008–2017
- **Extract B:** The importance of palm oil
- **Extract C:** So what’s the problem with palm oil?

CONTEXT 2: DENTAL CARE

Questions 27 to 32

- **Extract D:** Courses of dental treatment (CoT) per 100 000 population in England, by NHS region, 2016–17
- **Extract E:** Is the current UK dental system ‘fit for purpose’?
- **Extract F:** What else could be done?

Context 1**Total for this context: 50 marks****PALM OIL****Extract A: Certified sustainable palm oil production area (millions of hectares), 2008–2017**

Note: To be 'certified sustainable' requires firms to meet criteria which help to minimise the negative impacts of growing palm oil on the environment and communities in palm oil-producing regions.

Source: Roundtable on Sustainable Palm Oil, January 2018

Extract B: The importance of palm oil

Palm oil is the world's cheapest and most popular vegetable oil with over 30% of the market. It is used for cooking throughout the world, both in the food industry and in homes, particularly in Africa and parts of Asia. Palm oil can be used as a cheap substitute for butter so for many poor people, palm oil is an important part of their diet. According to one source, average consumption per person worldwide was 7.7 kg in 2015. Palm oil is also used to make soap, washing powder and biofuel. 5

With growing populations in emerging economies, the demand for palm oil for food has doubled over the last 15 years. Rising concerns about other less healthy fats have led to stricter food labelling requirements in some countries. The World Health Organization believes that the fat in palm oil can also cause health problems, including higher cholesterol which may lead to heart disease. 10

Malaysia and Indonesia, in south-east Asia, produce over 80% of the world's palm oil. The industry has provided much-needed export revenue as well as jobs and improvements to infrastructure. It has helped to reduce poverty and, in the case of Malaysia, it has also reduced its specialisation in rubber and tin. Another important reason for the increased popularity of palm oil with growers is that it is the most productive oil crop, yielding five times as much oil per hectare as rapeseed, eight times as much as sunflower and ten times as much as soybean yields. Therefore, it seems that the palm oil industry has much to offer to both consumers and producers in a variety of industries. 15

Source: News reports, December 2017

Extract C: So what's the problem with palm oil?

The environment is a scarce resource. The high yield of trees producing palm oil and increased demand have encouraged farmers to plant more. However, this has resulted in cutting down forests which are home to animals such as the orangutan. In the dry season, there is an increased risk of fires in south-east Asia as forests are cleared and the surrounding areas can be affected by clouds of ash for several weeks, causing breathing problems. 5

So, what can be done to take advantage of the benefits but limit the problems of palm oil production and use? The Malaysian government has said that it will restrict the growth of palm oil plantations so that 50% of the country remains covered by forest. Also, since December 2014, palm oil must be listed as a separate ingredient on food labels in the European Union (EU) rather than just under the general heading of 'vegetable oil'. 10

In 2004, the Roundtable on Sustainable Palm Oil (RSPO) was formed 'to promote the production and use of sustainable palm oil for people, planet and prosperity'. If growers and retailers, such as Waitrose and Starbucks, agree to be environmentally responsible and comply with certain standards, their brands can then be RSPO certified. However, meeting such standards adds to firms' costs and the prices paid by consumers. By 2016, only 19% of world palm oil was certified as 'sustainable'. 15

Is enough being done? Who gains and who loses from controls on the palm oil industry? For example, should there be limits on the use of palm oil for biofuel, the so-called 'food versus fuel debate'? Is more international agreement required, and if so, about what? Or should the industry be left to market forces? 20

Source: News reports, December 2017

Turn over for Context 1 questions

Turn over ►

Context 1 – Questions 21 to 26

- | | |
|---|---|
| 2 | 1 |
|---|---|

 Define 'specialisation' **Extract B** (line 15). **[3 marks]**
- | | |
|---|---|
| 2 | 2 |
|---|---|

Extract B (lines 15–16) states: 'Another important reason for the increased popularity of palm oil with growers is that it is the most productive oil crop.'
- If 4 hectares of land yield 15 tonnes of palm oil, calculate, to **one** decimal place, the expected yield of sunflower oil from 6 hectares of land. **[4 marks]**
- | | |
|---|---|
| 2 | 3 |
|---|---|

 Use **Extract A** to identify **two** significant features of the changes in the area used for certified sustainable palm oil production over the period shown. **[4 marks]**
- | | |
|---|---|
| 2 | 4 |
|---|---|

Extract B (line 3) states: 'Palm oil can be used as a cheap substitute for butter'.
- Draw a supply and demand diagram showing the effects on the market for butter of a fall in the price of palm oil. **[4 marks]**
- | | |
|---|---|
| 2 | 5 |
|---|---|

Extract C (lines 18–19) states: 'should there be limits on the use of palm oil for biofuel, the so-called 'food versus fuel debate'?'
- Explain how the increased demand for palm oil used for biofuel is likely to affect the market for palm oil used for food. **[10 marks]**
- | | |
|---|---|
| 2 | 6 |
|---|---|

Extract B (lines 18–19) states: 'the palm oil industry has much to offer to both consumers and producers in a variety of industries.'
- Use the extracts and your knowledge of economics to evaluate whether more should be done to control the palm oil industry. **[25 marks]**

There are no questions printed on this page

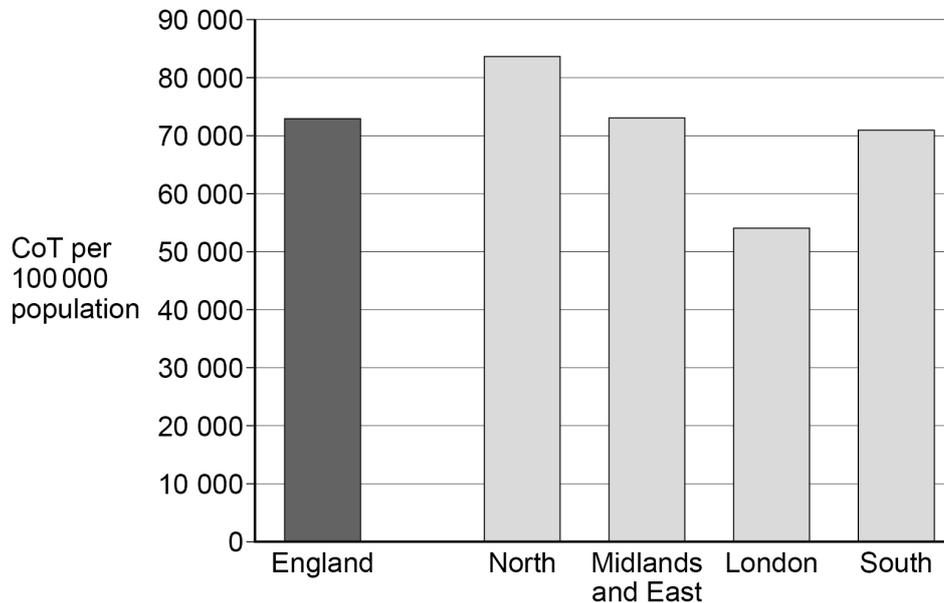
Turn over for Context 2

Turn over ►

Context 2

Total for this context: 50 marks

DENTAL CARE

Extract D: Courses of dental treatment (CoT) per 100 000 population in England, by NHS region, 2016–17

Note: A ‘course of dental treatment’ involves a single payment even if it includes more than one visit to the dentist to complete the work needed.

Source: NHS Digital

Extract E: Is the current UK dental system ‘fit for purpose’?

The recommended time between dental check-ups varies between 3 months and 2 years, depending on the person’s dental health. A check-up can identify problems with teeth and gums, which may be more difficult to treat later: poor dental health is linked with an increased risk of heart disease and strokes. However, concerns are growing about the ability of the UK dental system to provide an adequate service. In 2016, a letter from over 400 dentists to a national newspaper claimed that the NHS dental system in England was ‘unfit for purpose’. Inadequate spending by government, targets to increase the number of patients treated and a lack of education about basic dental care have all been blamed for making the work of dentists very difficult. Meanwhile, a growing population is increasing the demand for dental care.

5

Dental care is one of the few services provided by the National Health Service (NHS) where people have to pay part of the cost, although it is provided free to children and those on certain benefits. However, the lack of access to NHS treatment in some parts of the UK, particularly in England, has forced some people to pay the higher cost of private dental care whilst others go without or go elsewhere. In Dewsbury, West Yorkshire, Dentaid, a charity which mainly works in poorer countries, recently trialled a scheme to offer emergency dental care for poor and vulnerable people, who only paid if they could afford to.

10

15

Staff shortages have attracted many foreign dentists but it may become more difficult for foreign dentists to work in the UK when we leave the European Union (EU). Given all these problems, a review of the current system for providing dental care in the UK may be needed.

Source: News reports, January 2018

Extract F: What else could be done?

Recent NHS figures show that 48% of adults and 31% of children have not seen a dentist for two years. Research by Healthwatch, a group that promotes the interests of consumers, claims that in some areas, only 1 in 5 dental surgeries is taking on new NHS patients. However, NHS England has stated that over 90% of people who wanted an NHS dental appointment during the previous two years got one. So, is there a crisis or not?

5

Currently, about 60 000 people are admitted to hospital each year because of tooth decay, three-quarters of them children. With over 90% of dental diseases being preventable, perhaps there should be more education to reduce children's sugar consumption. Unlike Wales and Scotland, England does not have a national programme aimed at improving children's dental health. The Royal College of Surgeons has suggested supervised tooth-brushing sessions in all nursery schools in England. Hopefully, policy interventions such as the new tax on sugar-sweetened drinks will help but parents also have an important part to play.

10

Another relatively recent change has been the growth of 'dental tourism'. Prices for many dental treatments in Hungary, for example, are about half those of the UK, and more people are choosing to go abroad for dental treatment. Cheap flights from low-cost airlines have also made such trips more affordable. It could be argued that the dental care industry is therefore becoming a more competitive market, with foreign clinics offering state-of-the-art equipment and friendly, English-speaking staff.

15

Taking all the evidence into consideration, is there a need for the government to take more action to improve dental health in the UK, and if so, what should be done? Or is the current system still 'fit for purpose'?

20

Source: News reports, January 2018

Turn over for Context 2 questions**Turn over ►**

Context 2 – Questions 27 to 32

- 2 7** Define ‘competitive market’ **Extract F** (line 17). **[3 marks]**
- 2 8** **Extract F** (line 6) states: ‘Currently, about 60 000 people are admitted to hospital each year because of tooth decay...’
- If the population increases by 2.25% in the following year, other things being equal, calculate, to the nearest child, the number of children expected to be admitted to hospital because of tooth decay. **[4 marks]**
- 2 9** Use **Extract D** to identify **two** significant features of the number of courses of dental treatment (CoT) per 100 000 population in 2016–17. **[4 marks]**
- 3 0** **Extract F** (lines 13–14) states: ‘Prices for many dental treatments in Hungary, for example, are about half those of the UK’.
- Draw a supply and demand diagram showing the effects on the market for UK dental care of a fall in the price of dental care abroad. **[4 marks]**
- 3 1** **Extract E** (line 9) states: ‘a growing population is increasing the demand for dental care.’
- Explain how the increasing demand for dental care is likely to affect the market for dentists. **[10 marks]**
- 3 2** **Extract F** (lines 19–20) states: ‘is there a need for the government to take more action to improve dental health in the UK, and if so, what should be done?’
- Use the extracts and your knowledge of economics to evaluate whether the UK government should take more action to improve dental health in the UK. **[25 marks]**

END OF CONTEXTS

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