



Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

Forename(s)

Candidate signature

I declare this is my own work.

AS ECONOMICS

Paper 1 The Operation of Markets and Market Failure

Monday 11 May 2020

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.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- 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	
Section	Mark
A	
B	
TOTAL	



J U N 2 0 7 1 3 5 1 0 1

IB/M/Jun20/E17

7135/1

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

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

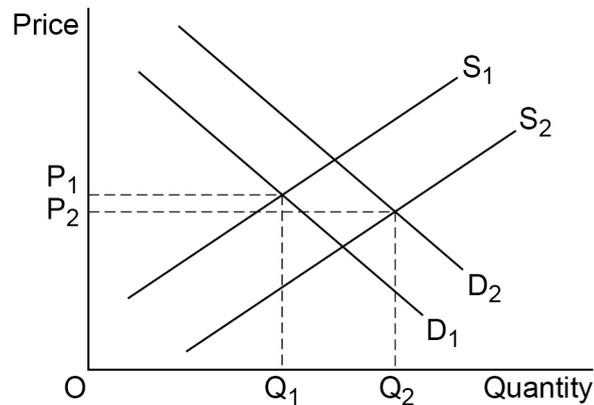
CORRECT METHOD  WRONG METHODS    If you want to change your answer you must cross out your original answer as shown. If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. **0 1**

A resource must be scarce if

A it has an opportunity cost.**B** it is non-renewable.**C** there is a high demand for it.**D** there is a small quantity supplied.**[1 mark]**

0 2

Figure 1 shows demand (D) and supply (S) in the market for electric cars. Demand is initially at D_1 and supply at S_1 .

Figure 1

Other things remaining the same, which one of the following combination of events could have caused demand to shift from D_1 to D_2 and supply from S_1 to S_2 ?

- A** Greater availability of roadside chargers for electric cars and a rise in workers' wages
- B** Higher petrol prices and an increase in workers' productivity
- C** Introduction of a road pricing scheme for all vehicles and higher diesel fuel prices
- D** Lower rail and bus fares and the use of new technology for electric car production

[1 mark]

0 3

Government failure must have occurred when government intervention

- A** causes income inequality to increase.
- B** has unintended consequences.
- C** is based on imperfect information.
- D** reduces total welfare in the economy.

[1 mark]**Turn over ►**

0 4

Table 1 shows the prices and quantities of rice and pasta sold in a supermarket in one month.

Table 1

Price of rice	Quantity of rice (000s packets)	Price of pasta	Quantity of pasta (000s packets)
£2.00	100	£1.50	40
£2.25	80	£1.50	50

When the price of rice rises from £2.00 to £2.25, the cross elasticity of demand for pasta with respect to the price of rice is

A -2.0**B** -0.5**C** +0.5**D** +2.0**[1 mark]****0 5**

The number of film production companies in a city increases. As a result, the pool of workers skilled in making films grows. Companies experience a reduction in their average costs.

The fall in average costs results from

A a reduction in diseconomies of scale.**B** an increase in managerial economies of scale.**C** the existence of external economies of scale.**D** the presence of technical economies of scale.**[1 mark]**

0 6

Table 2 shows total costs and profit for different levels of output produced by a firm.

Table 2

Output	Total cost (£)	Profit (£)
50	1000	1000
100	1800	1700
150	2400	2400

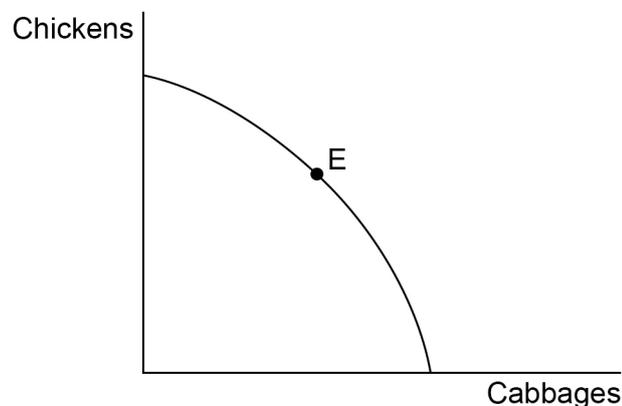
When the firm increases its output from

- A** 50 to 100, the price falls by £2
- B** 50 to 100, the price falls by £3
- C** 100 to 150, the price falls by £2
- D** 100 to 150, the price falls by £3

[1 mark]

0 7

Figure 2 shows the production possibility frontier for an economy producing only two goods: chickens and cabbages.

Figure 2

Which one of the following statements is true?

- A** From the information given, it is impossible to determine whether point E is allocatively efficient
- B** From the information given, it is impossible to determine whether point E is productively efficient
- C** Point E is productively and allocatively efficient
- D** Point E is productively efficient but allocatively inefficient

[1 mark]**Turn over ►**

0 8

In the market for apples, at the current market price of £3 per kilo, consumers buy 5000 kilos and farmers produce 6000 kilos each week.

It can be concluded that

- A** consumers are unaware of the positive externalities from eating apples.
- B** the government must have set a maximum price for apples.
- C** the prices of substitute fruit such as oranges and pears have risen.
- D** there is disequilibrium in the apple market and the price is likely to fall.

[1 mark]

0 9

An online streaming firm increased its paying subscribers by 300% over a 4-year period. The firm's share of the total time people spent watching television doubled and profits grew rapidly.

Which one of the following is the most likely explanation for the firm's success?

- A** A low concentration ratio in the industry meant that the firm faced little competition
- B** A low income elasticity of demand enabled the firm to raise the price of its subscription and increase its profits
- C** The firm was able to cut average costs by producing and selling a homogeneous product
- D** The firm was innovative and this increased barriers to entry for firms wishing to join the industry

[1 mark]

1 0

Which one of the following statements about price elasticity of supply is correct?

Price elasticity of supply

- A** increases when a firm's labour costs increase.
- B** is affected by the amount of spare capacity.
- C** measures the responsiveness of price to a change in supply.
- D** tends to be lower in the long run than in the short run.

[1 mark]



1 1

Antonio sells ice creams in the local park. In a typical week, he sells 500 ice creams at £2 each and his total costs are £700. One week he does not work, so he sells no ice creams but his total costs are £200.

What are his variable costs in a typical week?

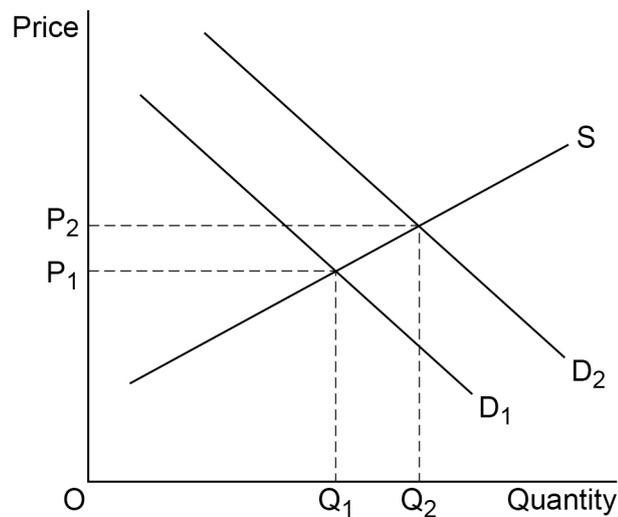
- A £200
B £300
C £500
D £700

[1 mark]

1 2

Figure 3 shows the market demand (D_1) and supply (S) of loft insulation material. If consumers have full information about the benefits of insulating their lofts, demand will be D_2 .

Figure 3



There is underproduction, $Q_2 - Q_1$, of loft insulation material because

- A at the social optimum, Q_2 , the price would be too high.
B firms have no incentive to increase output beyond Q_1 .
C firms lack information about the external benefits of loft insulation.
D the government has failed to set a minimum price for loft insulation.

[1 mark]

Turn over ►



1 3

A firm producing frozen foods has collected statistics on recent trends in sales of oven chips, as shown in **Table 3**.

Table 3

Year	Average number of bags of oven chips sold per week	Average real income of customers (2018 prices)
2018	7800	£23 000
2019	7600	£22 000

These statistics suggest that oven chips

- A** are a normal good.
- B** are an inferior good.
- C** have an income elasticity of demand greater than 1.
- D** have an income elasticity of demand less than 0.

[1 mark]**1 4**

Which one of the following helps to explain why profits are likely to be lower in a perfectly competitive market than in a monopoly market?

- A** A firm with monopoly power doesn't need to spend money on research and development to improve its products
- B** Firms in a perfectly competitive market are more likely to experience diseconomies of scale
- C** In a monopoly, a firm can increase the price of the product by limiting its output
- D** In a perfectly competitive market, firms differentiate their products to compete with rivals and achieve brand loyalty

[1 mark]

1 5

Land is in composite demand and can be used to build houses or to provide playing fields. When the demand for playing fields increases, there will be

- A** a decrease in the price of new houses.
- B** a decrease in the supply of new houses.
- C** an increase in demand for new houses.
- D** an increase in output of new houses.

[1 mark]**1 6**

A government decides to set a minimum price for plastic bottles of water above the current market price. The most likely impact of the scheme will be

- A** a rise in consumption of plastic bottles of water.
- B** a shortage of plastic bottles of water if the price elasticity of supply is zero.
- C** excess stocks of plastic bottles of water.
- D** no excess supply of plastic bottles of water if the price elasticity of demand is zero.

[1 mark]**1 7**

The production of a good generates positive externalities. This means that at the free market equilibrium

- A** the good will be under-produced.
- B** the price of the good will be too low.
- C** there will be excess demand for the good.
- D** the supply of the good will be inelastic.

[1 mark]**Turn over ►**

1 8

The percentage share of total income received by the poorest 20% of households in an economy rose over one year. Over the same period, the share received by the richest 20% of households fell whilst national income and population remained constant.

It can be concluded that

- A** in this economy, the distribution of income became more equitable.
- B** the incomes of some households moved closer to the average income of the economy.
- C** the incomes of the middle 20% of households in the income distribution did not change.
- D** the gap between the income of the richest household and the poorest household became smaller.

[1 mark]**1 9**

A firm makes more use of division of labour when organising its workforce. The most likely result will be

- A** higher labour productivity.
- B** less capital equipment per worker.
- C** lower labour turnover.
- D** lower wage rates.

[1 mark]**2 0**

In a free market, the consumption of a good leads to negative externalities. If left to the free market, how would price and output compare to the social optimum?

- A** The price and output would be higher
- B** The price and output would be lower
- C** The price would be higher and the output lower
- D** The price would be lower and the output higher

[1 mark]**20****END OF SECTION A**

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 21 to 30 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

BUS TRAVEL

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 'fixed costs' in **Extract B** (line 13).

[3 marks]

Turn over ►



2 2

Use **Extract A** to calculate the **difference** in the median male and female take-up rates of concessionary travel schemes for the elderly in England for the years shown.

[4 marks]

2 3

Use **Extract A** to identify **two** significant points of comparison between the take-up of concessionary travel schemes by males and females in England over the period shown.

[4 marks]

Comparison 1 _____

Extra space _____

Comparison 2 _____

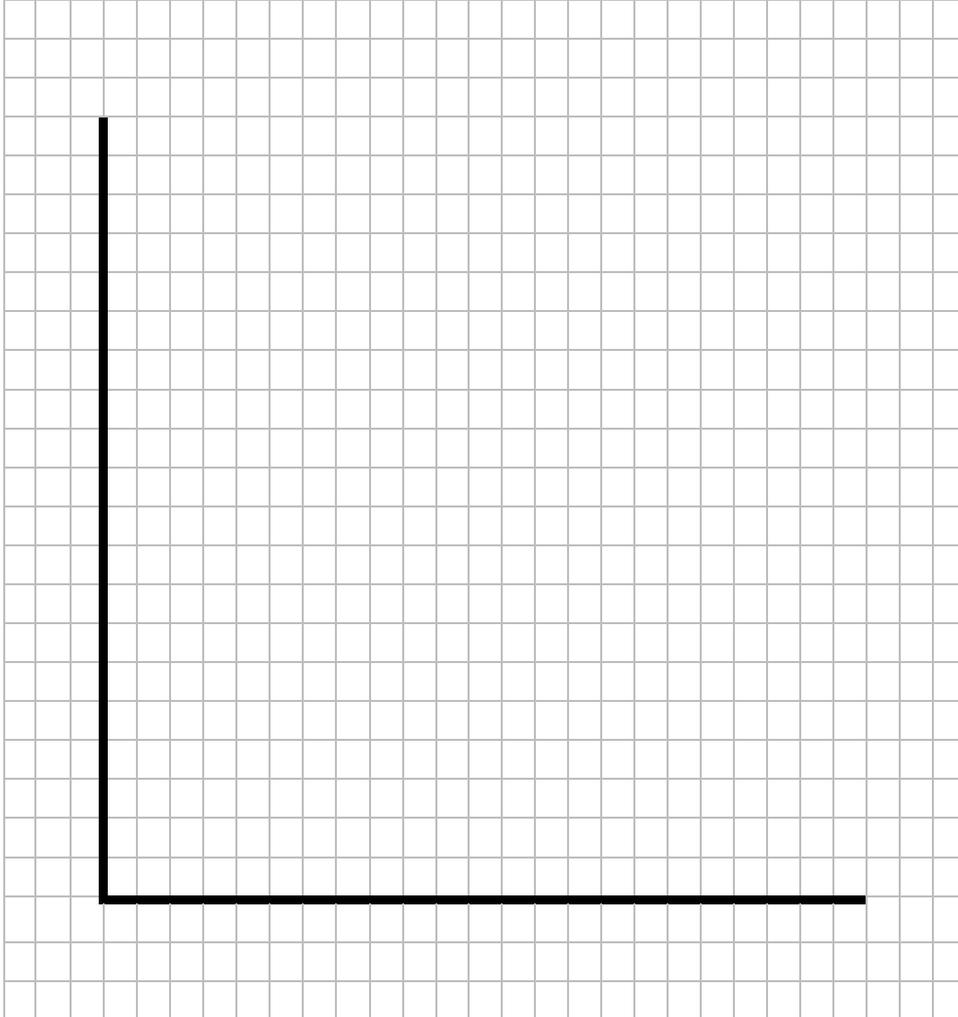
Extra space _____



2 4

Extract C (line 7) states: 'Bus companies also receive subsidies to operate routes in rural areas.'

Draw a supply and demand diagram to show the effects on the market for bus travel of the government providing a subsidy. The total amount of government spending on the subsidy should be labelled clearly.

[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

E-CIGARETTES

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 'social cost' in **Extract E** (line 7).

[3 marks]

2 8 Use **Extract D** to calculate, to **one** decimal place, the **difference** between the mean male and female rates of cigarette smoking in Great Britain for the years shown.

[4 marks]

Turn over ►



2 9

Use **Extract D** to identify **two** significant points of comparison between the rates of cigarette smoking of males and females in Great Britain over the period shown.

[4 marks]

Comparison 1 _____

Extra space _____

Comparison 2 _____

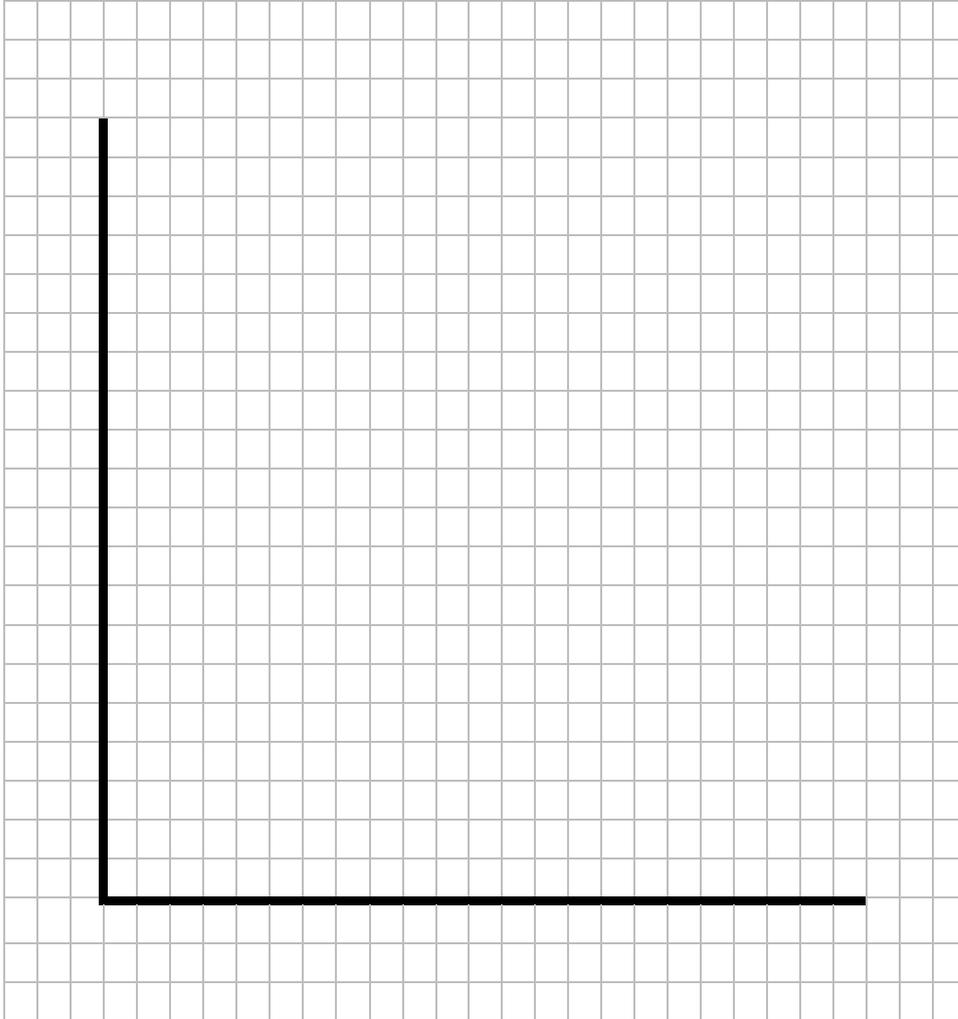
Extra space _____



3 0

Extract E (lines 10–12) states: ‘between 2006 and 2016, the price of tobacco rose by 43% more than general retail prices with the tax now being about 80% of the price.’

Draw a supply and demand diagram to show the effects on the market for cigarettes of the government imposing an indirect tax. The total amount of government tax revenue should be labelled clearly.

[4 marks]

Turn over for the next question

Turn over ►

There are no questions printed on this page

*Do not write
outside the
box*

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**



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3 6



2 0 6 A 7 1 3 5 / 1

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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: BUS TRAVEL

Questions 21 to 26

- **Extract A:** Take-up of concessionary bus travel schemes for the elderly in England by gender, 2005–2017
- **Extract B:** Why should the elderly be entitled to free travel on buses?
- **Extract C:** Is continued free bus travel for elderly people justifiable?

CONTEXT 2: E-CIGARETTES

Questions 27 to 32

- **Extract D:** Rates of cigarette smoking in Great Britain by gender, 2005–2017
- **Extract E:** The decline of conventional smoking
- **Extract F:** The rise of the e-cigarette

Context 1

Total for this context: 50 marks

BUS TRAVEL

Extract A: Take-up of concessionary bus travel schemes for the elderly in England by gender, 2005–2017

Year	Male (%)	Female (%)
2005	47	58
2007	62	70
2009	71	78
2011	75	81
2013	73	79
2015	72	78
2017	67	71

Note: Concessionary travel schemes involve free or a reduced price of travel

Source: National Travel Survey, Department for Transport, updated July 2018

Extract B: Why should the elderly be entitled to free travel on buses?

Since 2010, both men and women have been able to apply for a bus pass for free off-peak bus travel when they reach the female State Pension age. By October 2020, this will rise to 66. There used to be regional variations but there is now a national scheme, funded by the UK government. For an annual fee, those over 60 also receive a third off most rail fares. 1

What is the justification for letting elderly people travel on buses for free? Various social, economic and environmental reasons have been given, covering both private and external benefits. As well as the ability to visit friends and family, there is improved access to shops, health care and other vital facilities. Many older people also contribute to the economy through voluntary work or child care, the value of which has been estimated to be £10 billion and £3 billion respectively. There is evidence that without free bus travel, a third of these journeys would be made by car adding to congestion, air pollution and traffic-related accidents. Reduced demand for bus travel could lead to fewer bus services, resulting in less availability for paying customers. Currently, the additional 'free' passengers help to spread the fixed costs. 5 10

It has been claimed that each £1 spent on the scheme generates nearly £3 in benefits. Research also suggests that the benefits go more to those on lower incomes and/or without a car, helping to combat the effects of an inequitable distribution of income and wealth. 15

Source: News reports, December 2018

Extract C: Is continued free bus travel for elderly people justifiable?

When the State Pension was introduced in 1948, a 65-year-old could expect to live another 13.5 years. By 2017, this had risen to 22.8 years. Recent figures predict that the number of people over the State Pension age in the UK will grow by a third between 2017 and 2042, from 12.4 million to 16.9 million. Many of these pensioners have reasonable incomes. 1

Bus operators are paid to provide free bus travel on the basis that they are ‘no better and no worse off’ as a result. Government spending on such travel is therefore based on demand. Bus companies also receive subsidies to operate routes in rural areas which would otherwise be unprofitable. However, with the squeeze on public expenditure, funding for these supported services has been cut by 45% since 2010, whilst bus fares have risen by 13% above inflation and over 3000 routes have been cut. With both central and local government looking to make savings of billions of pounds, is free bus travel for the elderly as important, for example, as educating children or emptying bins? 5 10

Both the take-up rate and number of journeys per bus pass have been falling in recent years, so the free bus pass scheme for the elderly may still be workable. However, as fares continue to rise, along with the number of people eligible for a pass, the basis for the scheme may need rethinking. Perhaps the time has come to stop free bus travel for the elderly or to limit it to certain groups? 15

Source: News reports, December 2018

Turn over for Context 1 questions

Turn over ►

Context 1 – Questions 21 to 26

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

 Define 'fixed costs' in **Extract B** (line 13). **[3 marks]**
- | | |
|---|---|
| 2 | 2 |
|---|---|

 Use **Extract A** to calculate the **difference** in the median male and female take-up rates of concessionary travel schemes for the elderly in England for the years shown. **[4 marks]**
- | | |
|---|---|
| 2 | 3 |
|---|---|

 Use **Extract A** to identify **two** significant points of comparison between the take-up of concessionary travel schemes by males and females in England over the period shown. **[4 marks]**
- | | |
|---|---|
| 2 | 4 |
|---|---|

Extract C (line 7) states: 'Bus companies also receive subsidies to operate routes in rural areas.'
- Draw a supply and demand diagram to show the effects on the market for bus travel of the government providing a subsidy. The total amount of government spending on the subsidy should be labelled clearly. **[4 marks]**
- | | |
|---|---|
| 2 | 5 |
|---|---|

Extract C (line 13) states: 'Both the take-up rate and number of journeys per bus pass have been falling in recent years.'
- Explain **two** factors which could lead to an increase in the demand for bus travel in the future. **[10 marks]**
- | | |
|---|---|
| 2 | 6 |
|---|---|

Extract C (lines 16–17) states: 'Perhaps the time has come to stop free bus travel for the elderly or to limit it to certain groups?'
- Use the extracts and your knowledge of economics to evaluate whether the UK government should continue to provide free bus travel for all, some or no elderly people. **[25 marks]**

There are no extracts printed on this page

Turn over for Context 2

Turn over ►

Context 2**Total for this context: 50 marks****E-CIGARETTES****Extract D: Rates of cigarette smoking in Great Britain by gender, 2005–2017**

Year	Male (%)	Female (%)
2005	25.3	22.7
2007	22.1	19.7
2009	22.0	20.2
2011	21.0	18.8
2013	21.6	16.8
2015	19.1	16.6
2017	18.7	15.0

Source: Opinions and Lifestyle Survey, General Lifestyle Survey and General Household Survey, ONS, accessed December 2018

Extract E: The decline of conventional smoking

There have long been concerns about links between smoking and some illnesses. In 2015, smoking was blamed for approximately 79 000 deaths, accounting for 20% of male and 13% of female deaths. Action on Smoking and Health (ASH), an anti-smoking campaign group, has estimated that the cost to society of smoking is about £13 billion a year. They claim that about half of all life-long smokers will die prematurely, with their life expectancy cut by about 10 years. However, it is not just the private costs that concern the government, it is the full social cost. 1 5

In 1974, 46% of those 16 and over were cigarette smokers but by 2017 this had fallen to 17%. Fewer under-18s now smoke but girls are more likely to be regular smokers. The decline has been attributed to a variety of measures including tougher regulation. Also, between 2006 and 2016, the price of tobacco rose by 43% more than general retail prices with the tax now being about 80% of the price. Those on low incomes are hit hardest, particularly since they are more likely to smoke. 10

People who want to stop smoking have traditionally used patches, gum or even hypnosis. Recently, sales of these quitting aids have slowed as vaping/electronic cigarette (e-cigarette) sales have soared. In 2012, UK sales of e-cigarettes were £44 million but in 2013 sales rose 340%, encouraged by the major tobacco firms, worried about lower sales in many countries. However, the growth of e-cigarettes has fallen since, with some smokers switching back to conventional cigarettes and some uncertainty about the health effects of e-cigarettes. 15

Source: News reports, December 2018

Extract F: The rise of the e-cigarette

According to the Office for National Statistics, 17% of women and 22% of men have tried e-cigarettes, although fewer claim to be current users. Use of e-cigarettes also remains very low among young people; just 2% of 11 to 18-year-olds use e-cigarettes at least weekly. E-cigarettes do not contain tobacco but smokers receive nicotine in a vapour. This makes them less appealing and some believe that about one in ten who smoke e-cigarettes may start smoking conventional cigarettes. However, the main reason people give for their use is to help to stop smoking. According to the NHS website, of the 2.9 million adults who use e-cigarettes, 1.5 million are ex-smokers. They claim that there is a much smaller risk of harm than from conventional cigarettes and this view has been supported by the Royal College of Physicians. 1

There is strict legislation about labelling, advertising and where e-cigarettes can be used, but in 2016 the Medicines and Healthcare Products Regulatory Agency approved the use of one brand of e-cigarette. This classed it as a medicine which could lead to its prescription on the NHS, perhaps saving money in the long term. Some experts believe many lives could be saved by people vaping instead of smoking but the World Health Organization has concerns about the effects on third parties. 5 10 15

What more, if anything, should be done in the e-cigarette market? Sweden is now the only EU country with a smoking rate lower than the UK. Should the UK government promote a particular brand of e-cigarettes as a 'healthy alternative' to conventional cigarettes? Should the use of e-cigarettes be discouraged or has government intervention already gone far enough?

Source: News reports, December 2018

Turn over for Context 2 questions

Turn over ►

Context 2 – Questions 27 to 32

- 2 7** Define 'social cost' in **Extract E** (line 7). **[3 marks]**
- 2 8** Use **Extract D** to calculate, to **one** decimal place, the **difference** between the mean male and female rates of cigarette smoking in Great Britain for the years shown. **[4 marks]**
- 2 9** Use **Extract D** to identify **two** significant points of comparison between the rates of cigarette smoking of males and females in Great Britain over the period shown. **[4 marks]**
- 3 0** **Extract E** (lines 10–12) states: 'between 2006 and 2016, the price of tobacco rose by 43% more than general retail prices with the tax now being about 80% of the price.'
- Draw a supply and demand diagram to show the effects on the market for cigarettes of the government imposing an indirect tax. The total amount of government tax revenue should be labelled clearly. **[4 marks]**
- 3 1** **Extract E** (lines 18–19) states: 'the growth of e-cigarettes has fallen since, with some smokers switching back to conventional cigarettes.'
- Explain **two** factors which could lead to an increase in the demand for conventional cigarettes. **[10 marks]**
- 3 2** **Extract F** (lines 17–19) states: 'Should the UK government promote a particular brand of e-cigarettes as a 'healthy alternative' to conventional cigarettes? Should the use of e-cigarettes be discouraged or has government intervention already gone far enough?'
- Use the extracts and your knowledge of economics to evaluate whether the UK government should encourage, discourage or do nothing more to affect the use of e-cigarettes. **[25 marks]**

END OF QUESTIONS

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