

Please write clearly in block capitals.

Centre number

Candidate number

Surname _____

Forename(s) _____

Candidate signature _____

AS ECONOMICS

Paper 1 The operation of markets and market failure

Monday 14 May 2018

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	



Section A

Answer **all** questions in this section.

Do not write
outside the
box

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 The central purpose of the production of goods and services is to

- A** achieve more technological innovation.
- B** maximise exports.
- C** maximise profits.
- D** satisfy consumer wants.

[1 mark]

0 2 In an economy, competitive firms supply electricity that is generated using coal-fired power stations.

If the government tries to reduce pollution by imposing an indirect tax on the firms, this would

- A** shift the market demand curve to the left.
- B** shift the market demand curve to the right.
- C** shift the market supply curve to the left.
- D** shift the market supply curve to the right.

[1 mark]



0 3

The price elasticity of demand (PED) for petrol used by car drivers in an economy is estimated to be -0.2 .

Which one of the following is the most likely reason for the low PED?

A A tax on petrol

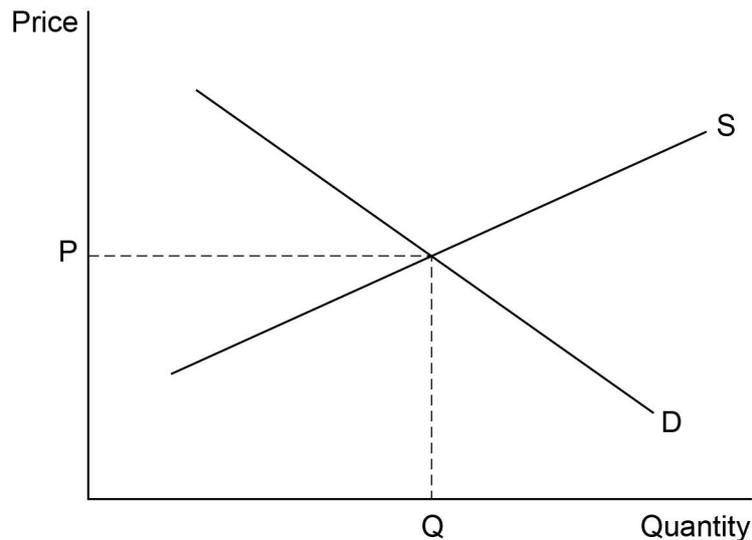
B Cycle lanes on many roads

C Few bus and rail services

D Low household incomes

[1 mark]**0 4**

The diagram below shows the demand curve (D) and the supply curve (S) in the market for tomatoes.



Which one of the following would result in a higher quantity consumed and a lower price charged for tomatoes?

A A fall in the price of the fertiliser used to grow tomatoes

B A hot summer causes consumers to eat more tomato salad

C The minimum wage for farm workers is increased

D The price of cucumbers falls

[1 mark]

0 5 Ben owns a small business that makes hand-made guitars.

One year he sells 160 guitars, his total revenue is £78 400, and his total costs are £59 200.

The average profit that Ben earns on each guitar is

A £120

B £370

C £490

D £860

[1 mark]

0 6 Which one of the following is most likely to reduce the benefits of specialisation?

A A reduction in government regulations

B An increase in competition

C Taxes on pollution

D Trade conducted by bartering

[1 mark]

0 7 Smoking cigarettes generates negative consumption externalities.

This means that

A the private benefit from smoking includes the consumption externalities.

B the social benefit from smoking is less than the private benefit.

C the social benefit from smoking is negative.

D the social optimum level of smoking is zero.

[1 mark]



0 8 Which one of the following is an example of the economic resource capital?

- A** A bank loan to a small business
- B** A scientific research laboratory
- C** Government subsidies for wind power
- D** Money in a savings account

[1 mark]

0 9 Training provided by firms in a free market economy may be underprovided because some of the benefits from training may be captured by other firms when the workers change jobs. Which one of the following best describes this situation?

- A** A negative production externality and a missing market
- B** A negative production externality and partial market failure
- C** A positive production externality and a missing market
- D** A positive production externality and partial market failure

[1 mark]

1 0 The income elasticity of demand for baked beans is -0.4 .

Weekly sales of baked beans are 73 000 tins.

If household incomes fall by 5%, then the new weekly sales of baked bean tins would be

- A** 63 875
- B** 71 540
- C** 74 460
- D** 82 125

[1 mark]



1	1
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There is a large increase in the number of different models of bicycles produced by the bicycle industry.

The most likely impact of this would be

A a decrease in advertising expenditure by bicycle firms.

B a fall in the price elasticity of demand for any one model of bicycle.

C an increase in barriers to entry to the bicycle industry.

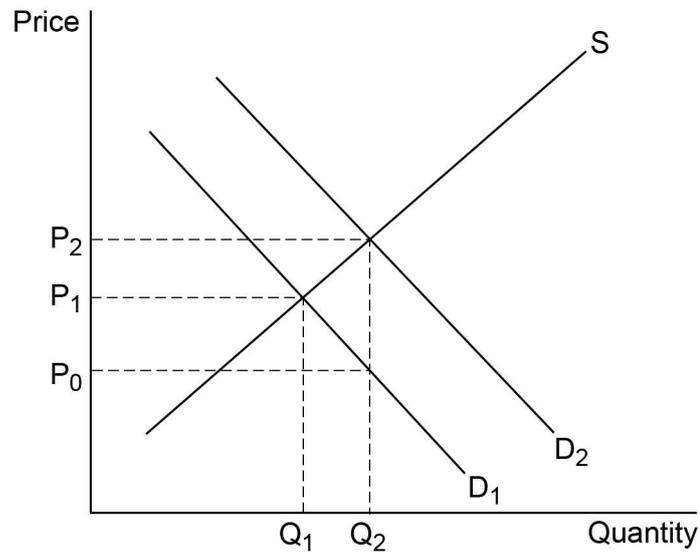
D an increase in productivity of manufacturing bicycles.

[1 mark]



1 2

In the following diagram D_1 shows the market demand for smoke alarms when consumers have imperfect information about the benefits of installing a smoke alarm. If consumers had full information, the market demand for smoke alarms would be D_2 .



Which one of the following policies is most likely to ensure that consumption and production of smoke alarms are at the social optimum level?

- A** A maximum price set at P_0
- B** A maximum price set at P_2
- C** A subsidy per unit equal to $P_1 - P_0$
- D** A subsidy per unit equal to $P_2 - P_0$

[1 mark]

1 3

In an economy hit by a recession, the owner of a small firm decides to continue to operate despite making losses.

This decision suggests that

- A** firms may have objectives other than profit maximisation.
- B** monopoly power is widespread in the economy.
- C** some small firms produce merit goods.
- D** the firm's average revenue is greater than its average cost.

[1 mark]



1 4 The table below shows the relationship between a firm's output and its production costs.

Output	Average variable costs (£)	Average total costs (£)
10	50	80
20	40	55
30	35	45

When the firm increases its output from

A 10 to 20 units, average fixed costs do not change.

B 10 to 20 units, average fixed costs fall by £15.

C 20 to 30 units, average fixed costs fall by £10.

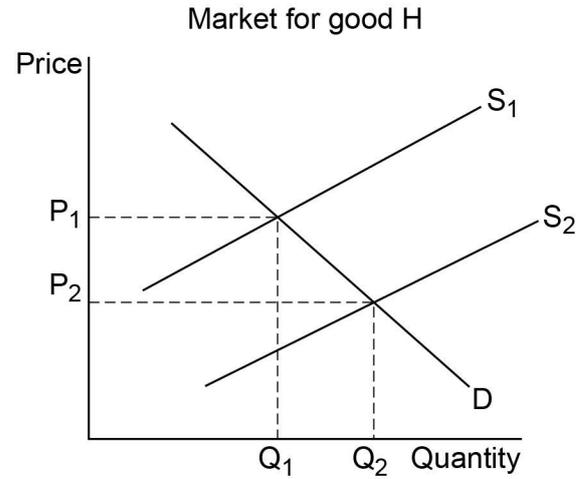
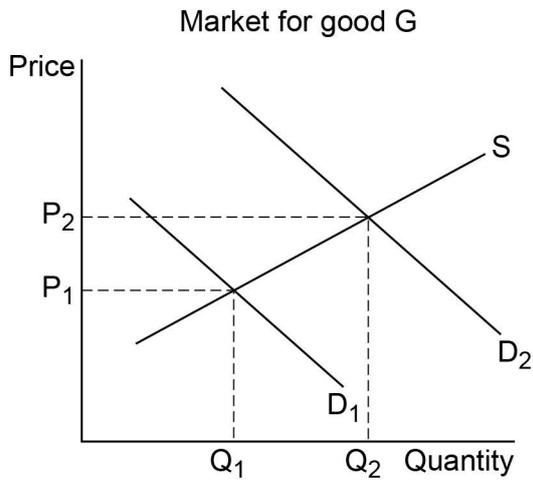
D 20 to 30 units, average fixed costs fall by £15.

[1 mark]



1 5

The diagrams below show the impact of an increase in demand for good G and the resulting change in the related market for good H.



These changes imply that goods G and H are in

- A** composite demand.
- B** derived demand.
- C** joint demand.
- D** joint supply.

[1 mark]**1 6**

Which one of the following statements about the distribution of income must be correct?

- A** An unequal distribution of income has to be inequitable
- B** 'The distribution of income is equitable' is a positive statement
- C** The distribution of income is equitable when everyone has the same income
- D** Whether the distribution of income is equitable is a value judgement

[1 mark]

1 7 Which one of the following would generate a short-run disequilibrium with excess supply in the market for Cornish pasties?

- A** A minimum price for Cornish pasties is set above the current market price
- B** Higher meat prices increase the cost of producing Cornish pasties
- C** More advertising increases the demand for Cornish pasties
- D** The government levies a new indirect tax on Cornish pasties

[1 mark]

1 8 One way to allocate road space in a congested city would be to charge drivers to use the roads.

One reason why this policy is likely to result in a more efficient allocation of resources is because

- A** incentives to build new roads would be higher.
- B** only higher income drivers would choose to use the roads.
- C** road use would be rationed to drivers who benefit from it the most.
- D** the government would raise a large amount of revenue from drivers.

[1 mark]

1 9 Firms in an industry with a high concentration ratio will typically experience

- A** a large amount of competition.
- B** a large degree of monopoly power.
- C** few economies of scale.
- D** low prices and profits.

[1 mark]



20

Online clothes retailers invest in new warehouses to enable them to hold larger stocks of clothes.

Other things remaining the same, this is most likely to result in

A a higher price elasticity of supply of clothes sold online.

B an increase in demand for clothes sold online.

C diseconomies of scale in the online clothes industry.

D lower barriers to entry to the online clothes industry.

[1 mark]

*Do not write
outside the
box*

20

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



Section B

*Do not write
outside the
box*

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

LIBRARIES

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 'public good' **Extract C** (line 18).

[3 marks]

Extra space _____



2	2
---	---

Extract C (lines 11–13) states: ‘A relatively small amount ... was spent on libraries in England in 2014/15.’

If the population of England in 2014/15 was 54.5 million, calculate, to the nearest pound, the amount spent on libraries per person.

[4 marks]

Turn over for the next question

*Do not write
outside the
box*



2 3

Use **Extract A** to identify **two** significant points of comparison between the percentage of people aged 16–24 and those aged 75+ who visited a library in England over the period shown.

[4 marks]

Comparison 1 _____

Extra space _____

Comparison 2 _____

Extra space _____

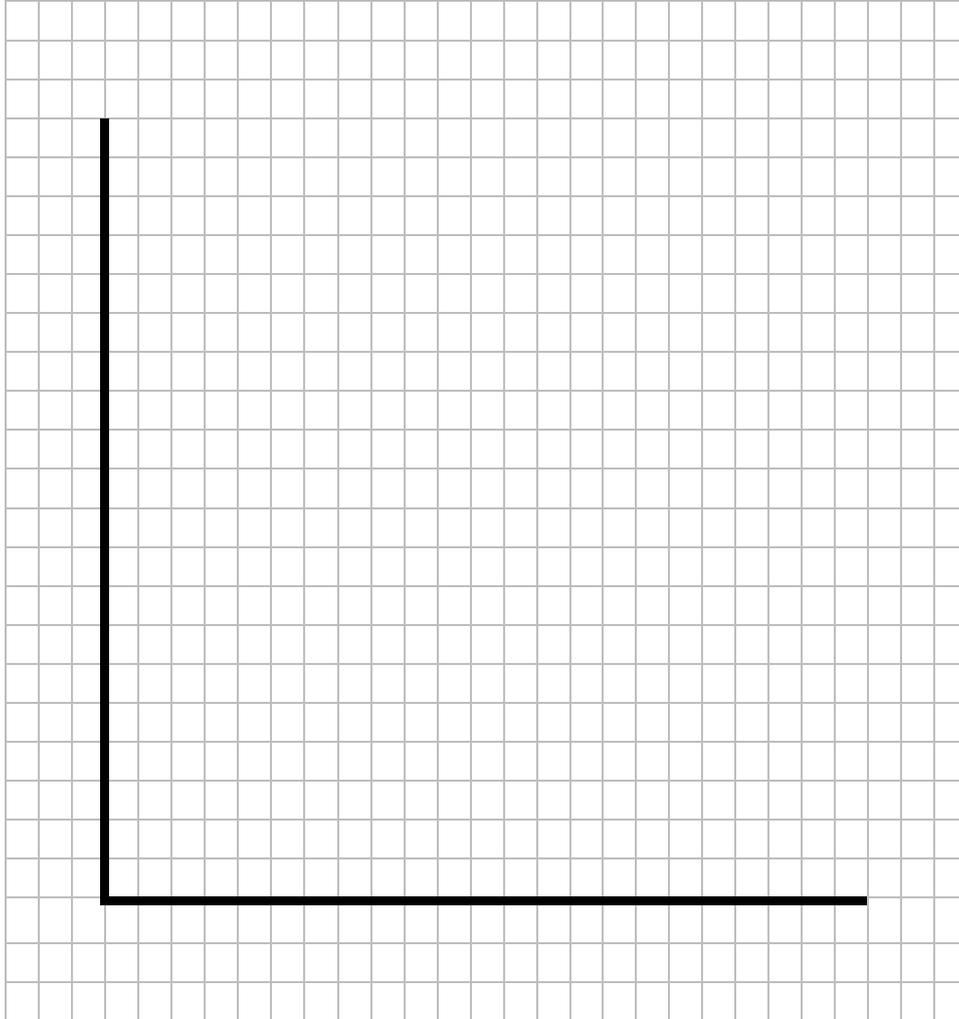


2	4
---	---

A local authority has a limited sum of money to spend on two services, libraries and other local government services.

Draw a production possibility diagram showing the potential provision of these two services **and** assuming resources are fully employed, label a point X where no resources are used for libraries.

[4 marks]



Turn over for the next question

*Do not write
outside the
box*



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

*Do not write
outside the
box*

OR

Context 2

Total for this context: 50 marks

AGRICULTURE

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 'minimum price' **Extract E** (line 6).

[3 marks]

2 8

Extract E (lines 8–9) states: 'One prediction was that 20% of dairy farms would close in 2016'.

If there were 9633 dairy farms in England and Wales in January 2016, calculate, to the nearest whole number, how many dairy farms there would be in January 2017 if the prediction for the percentage of dairy farms closing in 2016 is correct.

[4 marks]



2 9

Use **Extract D** to identify **two** significant points of comparison between the changes in employment and output in agriculture, forestry and fishing in the UK over the period shown.

[4 marks]

Comparison 1 _____

Extra space _____

Comparison 2 _____

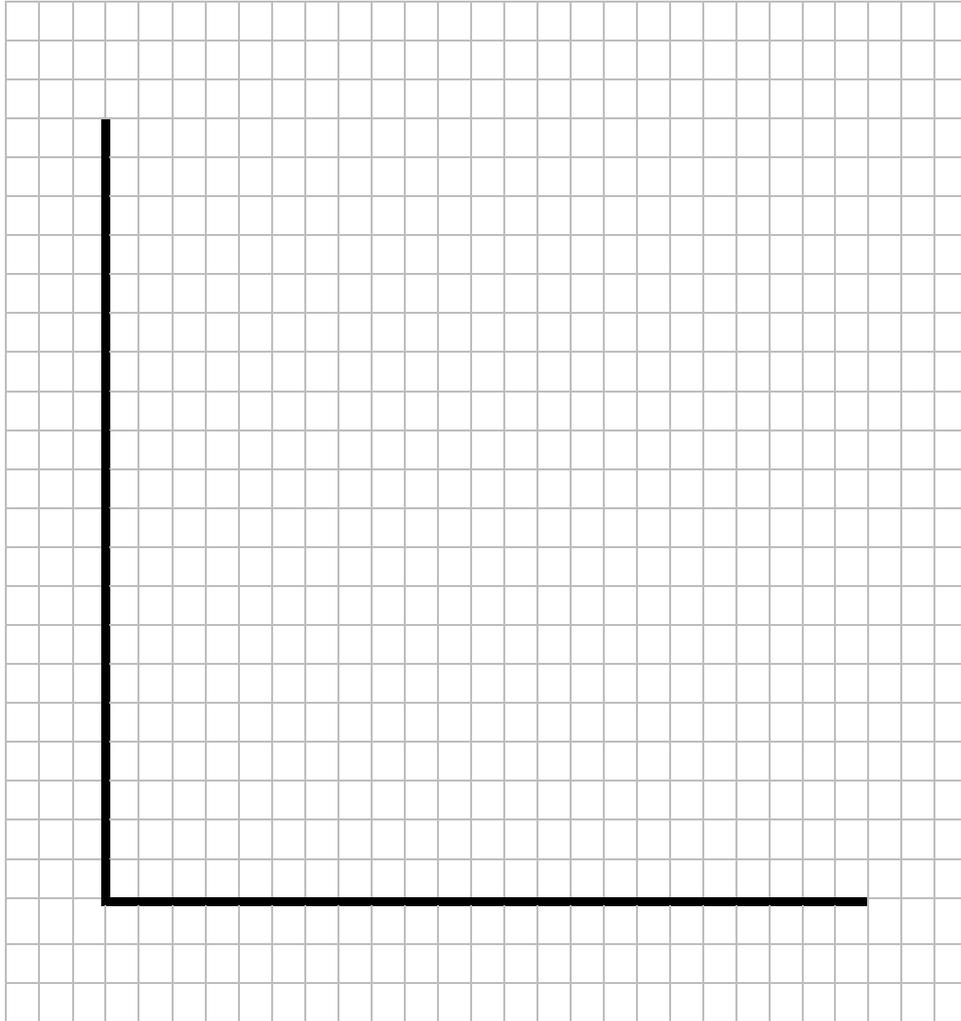
Extra space _____



3 0

Agricultural production can be divided into genetically modified (GM) food and non-GM food.

Draw a production possibility diagram showing the production of genetically modified (GM) food and non-GM food **and**, on the same diagram, draw a new production possibility curve to show the effect of increased productivity in GM food but no change in non-GM food.

[4 marks]

Turn over for the next question

*Do not write
outside the
box*



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: LIBRARIES

Questions 21 to 26

- **Extract A:** Percentage of people aged 16–24, 25–44 and 75+ who had visited a public library in England in the previous year, 2008/09 to 2015/16
- **Extract B:** What has happened to the local library?
- **Extract C:** Who should provide libraries?

CONTEXT 2: AGRICULTURE

Questions 27 to 32

- **Extract D:** UK agriculture, forestry and fishing – employment, index of output and milk price, 2009 to 2016
- **Extract E:** UK agriculture in crisis?
- **Extract F:** Crisis? What crisis?

Context 1**Total for this context: 50 marks****LIBRARIES**

Extract A: Percentage of people aged 16–24, 25–44 and 75+ who had visited a public library in England in the previous year, 2008/09 to 2015/16

Year	16–24 (%)	25–44 (%)	75+ (%)
2008/09	42.8	43.7	35.0
2009/10	40.0	40.9	32.9
2010/11	34.4	44.6	37.1
2011/12	34.5	44.0	38.9
2012/13	32.3	42.2	36.5
2013/14	33.4	40.4	33.3
2014/15	28.5	41.3	31.6
2015/16	27.4	37.4	34.3

* A public library consists of books and other information, provided mainly free of charge to the general public by local authorities.

Source: Department for Culture, Media and Sport

Extract B: What has happened to the local library?

Many years ago, a library was a place where you went to borrow a book or perhaps to find peace and quiet to study. However, a recent survey found that only a third of adults had used a library in the previous year, a significant fall since data collection began in 2005. Reasons why fewer people are using libraries include less free time, getting books from elsewhere, including eBooks and preferring to use their leisure time for other activities. Changes in technology and lifestyles have caused many to question the purpose of the local library. 5

Despite this, in the year 2014/15, there were more library visits than to the cinema, Premier League football matches and the top 10 UK tourist attractions combined. Libraries offer health information, provide support for businesses and a venue for community events. They promote lifelong learning and help people to live healthier and happier lives. A recent study put the value of using libraries frequently, in terms of 'life satisfaction', at £1359 per person per year. Many people in rural areas rely on mobile libraries, where large vehicles carrying a range of books and other resources visit regularly. 10

In 2015, about 11% of the UK population lacked internet access. Library staff and volunteers can help with online services and it is important that people have opportunities to develop new skills, which could also increase labour mobility. 15

In December 2016, the Department for Culture, Media and Sport published a plan for public libraries over the next five years. Their aim is to increase the use of libraries by raising awareness of what they do. A more innovative approach may be needed. Closer links with other cultural organisations such as museums and schools, musical activities and talks by local authors, could attract more users. 20

Source: News reports, 2017

Extract C: Who should provide libraries?

- Traditionally, libraries were funded by local authorities, such as Manchester City Council, helped by grants from central government. As the number of visitors and borrowers has fallen, many libraries have closed or been transferred to community groups, often run by volunteers. In Wales, for example, there were 1241 paid library jobs in 2010 but only 979 in 2016, whilst in Oxfordshire, the number of volunteers rose from 108 to 831 between 2010 and 2015. Volunteering can improve people's skills and self-confidence, help their career prospects and productivity, as well as make use of the spare time of the retired. However, Philip Pullman, author of *His Dark Materials*, believes "It is exploiting people's goodness and willingness to work". 5
- Faced with funding cuts, local authorities have to make difficult choices which have an opportunity cost. People's views differ and are influenced by moral and political judgements. A relatively small amount, approximately £762 million, was spent on libraries in England in 2014/15. This is perhaps surprising given their huge impact, including their positive externalities. 10
- The first Libraries Week will be held in October 2017, an ideal opportunity to promote what libraries offer. It is hoped that by 2021, England's international literacy ranking will be higher, with more people reading for pleasure and closer links between libraries and local schools. 15
- A library is not a public good so it does not have to be provided by the state. Perhaps libraries should undertake fundraising or ask wealthy donors for support? Charging for services or links with businesses and other local organisations may also provide much-needed funds. 20

Source: News reports, 2017

Turn over for Context 1 questions

Turn over ►

Context 1 – Questions 21 to 26

- 2 1** Define 'public good' **Extract C** (line 18). **[3 marks]**
- 2 2** **Extract C** (lines 11–13) states: 'A relatively small amount ... was spent on libraries in England in 2014/15'.
If the population of England in 2014/15 was 54.5 million, calculate, to the nearest pound, the amount spent on libraries per person. **[4 marks]**
- 2 3** Use **Extract A** to identify **two** significant points of comparison between the percentage of people aged 16–24 and those aged 75+ who visited a library in England over the period shown. **[4 marks]**
- 2 4** A local authority has a limited sum of money to spend on two services, libraries and other local government services.
Draw a production possibility diagram showing the potential provision of these two services **and** assuming resources are fully employed, label a point X where no resources are used for libraries. **[4 marks]**
- 2 5** **Extract B** (lines 2–3) states: 'a recent survey found that only a third of adults had used a library in the previous year, a significant fall since data collection began in 2005'.
Explain **two** reasons why the demand for library services has fallen. **[10 marks]**
- 2 6** **Extract C** (line 10) states: 'Faced with funding cuts, local authorities have to make difficult choices'.
Use the extracts and your knowledge of economics to assess whether local authorities should continue to provide public libraries. **[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

AGRICULTURE

Extract D: UK agriculture, forestry and fishing – employment, index of output and milk price, 2009 to 2016

Year	Employment in agriculture, forestry and fishing (000s)	Output in agriculture, forestry and fishing (2013=100)	Milk price (pence per litre)
2009	389	97.1	23.7
2010	419	96.5	24.7
2011	404	107.1	27.4
2012	426	99.3	28.1
2013	369	100.0	31.6
2014	419	113.9	31.5
2015	368	115.3	24.5
2016	370	111.4	22.7

Source: ONS and Defra

Extract E: UK agriculture in crisis?

Currently 68% of food consumed in the UK is produced in this country but the National Farmers Union (NFU) believe this could drop to 53% unless action is taken. The decision to leave the European Union (EU) has added to the uncertainty faced by farmers. A NFU representative described it as “one of the biggest challenges facing the industry but...a unique opportunity”. Although, over time, the EU has reduced its intervention, many farmers have relied on subsidies, minimum price controls or other interventions to help them to survive or to finance improvements.

5

Recently, UK milk prices have fallen due to excess supply. One prediction was that 20% of dairy farms would close in 2016. Others may switch to other types of farming or offer holiday accommodation. But, if farms close, prices could then start to rise again. Extreme weather conditions in some parts of the world may also increase many agricultural prices. Inequality will always exist but which is worse – lower incomes for farmers or higher prices for consumers? Improved technology could increase productivity but many farmers are struggling to finance this due to falling or volatile prices.

10

And what about the environment? Many people accuse modern farming methods of damaging wildlife habitats and polluting rivers but farmers also play a part in managing and protecting the countryside. Should there be more restrictions on what farmers can do or should they receive more government support?

15

Source: News reports, January 2017

Extract F: Crisis? What crisis?

The fall in the value of the pound since the Brexit vote has increased some import prices by 16% whilst UK grain exports have been at their highest for 20 years. Dairy prices are expected to rise in 2017 due to lower supply and strong demand – a growing world population needs feeding. Incomes are likely to rise for many farmers but higher costs of imported fuel and fertiliser may prevent this. 5

Poultry farmers have been doing better recently, with strong demand for eggs, particularly free-range, and significant productivity gains. However, the cost of feed and the avoidance of diseases such as avian flu are crucial.

Sales of organic food have also been rising steadily in the last few years, partly due to their alleged health benefits. More than half the baby food now sold in the UK is organic. However, organic food is usually more expensive since strict standards lead to lower yields. 10

Genetically modified (GM) foods do not occur naturally but have been developed by scientists to resist disease and increase yield. Some people fear that the food produced is unsafe but others claim that the increased output could raise revenue for farmers and lower prices for consumers. Currently, no GM crops are grown commercially in the UK but the first GM products were sold in British supermarkets in 1996. Leaving the EU will enable us to explore this area further. 15

It is clearly a time of uncertainty for the UK farming sector as over 40 years of EU involvement is replaced but by what? Should the UK government take an active role in agriculture, and if so, what policies should it implement? Or should it leave the sector to market forces with little, if any, intervention? 20

Source: News reports, January 2017

Turn over for Context 2 questions

Turn over ►

Context 2 – Questions 27 to 32

- 2 7** Define 'minimum price' **Extract E** (line 6). **[3 marks]**
- 2 8** **Extract E** (lines 8–9) states: 'One prediction was that 20% of dairy farms would close in 2016'.
If there were 9633 dairy farms in England and Wales in January 2016, calculate, to the nearest whole number, how many dairy farms there would be in January 2017 if the prediction for the percentage of dairy farms closing in 2016 is correct. **[4 marks]**
- 2 9** Use **Extract D** to identify **two** significant points of comparison between the changes in employment and output in agriculture, forestry and fishing in the UK over the period shown. **[4 marks]**
- 3 0** Agricultural production can be divided into genetically modified (GM) food and non-GM food.
Draw a production possibility diagram showing the production of genetically modified (GM) food and non-GM food **and**, on the same diagram, draw a new production possibility curve to show the effect of increased productivity in GM food but no change in non-GM food. **[4 marks]**
- 3 1** **Extract F** (lines 2–3) states: 'Dairy prices are expected to rise in 2017'.
Explain **two** factors that could increase the price of milk. **[10 marks]**
- 3 2** **Extract F** (lines 18–19) states: 'Should the UK government take an active role in agriculture, and if so, what policies should it implement?'
Use the extracts and your knowledge of economics to assess to what extent, if at all, the UK government should intervene in the agricultural sector. **[25 marks]**

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