AQA

AS
Economics

7135/1 The Operation of Markets and Market Failure

Mark scheme

7135

June 2018

Version/Stage: 1.0 Final

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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SECTION A

The following list indicates the correct answers used in marking the candidates' responses.

KEY LIST

1	D	**11**	C
2	C	**12**	D
3	C	**13**	A
4	A	**14**	B
5	A	**15**	D
6	D	**16**	D
7	B	**17**	A
8	B	**18**	C
9	D	**19**	B
10	C	**20**	A

	Total
A	5
B	4
C	5
D	6
	20

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

The levels of response grid below should be used when marking the 25 mark questions.

Level of response	Response	Max 25 marks
5	**Sound, focused analysis and well-supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles to the given context and, where appropriate, good use of data to support the response • includes well-focused analysis with clear, logical chains of reasoning • includes supported evaluation throughout the response and in a final conclusion.	**21–25 marks**
4	**Sound, focused analysis and some supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes some good application of relevant economic principles to the given context and, where appropriate, some good use of data to support the response • includes some well-focused analysis with clear, logical chains of reasoning • includes some reasonable, supported evaluation.	**16–20 marks**
3	**Some reasonable analysis but generally unsupported evaluation that:** • focuses on issues that are relevant to the question, showing satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the given context and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places • includes fairly superficial evaluation; there is likely to be some attempt to make relevant judgments but these are not well-supported by arguments and/or data.	**11–15 marks**
2	**A fairly weak response with some understanding that:** • includes some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • includes some limited, application of relevant economic principles to the given context and/or data to the question • includes some limited analysis but it may lack focus and/or become confused • includes attempted evaluation which is weak and unsupported.	**6–10 marks**
1	**A very weak response that:** • includes little relevant knowledge and understanding of economic terminology, concepts and principles • includes application to the given context which, at best, is very weak • includes attempted analysis which is weak and unsupported.	**1–5 marks**

SECTION B

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

21 *Define 'public good'* ***Extract C*** *(line 18).* ***[3 marks]***

Level of response	Response	Max 3 marks
1	• A full and precise definition is given.	**3 marks**
2	• The substantive content of the definition is correct, but there may be some imprecision or inaccuracy.	**2 marks**
3	• Some fragmented points are made.	**1 mark**

Examples of acceptable definitions worth 3 marks:

A product that is non-excludable and non-rival (an explanation of either term is an acceptable alternative, but both concepts need to be covered for 3 marks)

Examples of a definition worth 2 marks:

A product that is non-excludable **or** a product that is non-rival (as above, an explanation is acceptable)

Examples of a definition worth 1 mark:

A product that is provided by the government

A product that is non-rejectable (or explanation of non-rejectable)

MAXIMUM FOR PART 21: 3 MARKS

22 ***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]

For the correct answer: £14	**4 marks**
For the correct value but with incorrect or missing units**:** 14 **OR** For the exact answer, not corrected to the nearest pound: £13.98 (or with even more decimal places) **OR** Allow £13 (ie rounded down)	**3 marks**
For the exact answer, not corrected to the nearest pound and with missing/incorrect units: 13.98 (or with even more decimal places) or 13 **OR** For the correct calculation but the wrong answer: 762÷54.5 (with the correct unit (£) in their final answer)	**2 marks**
For the correct calculation but the wrong answer: 762÷54.5 (without the correct unit (£) in their final answer) **ALSO ALLOW** £14m or £13 981 651	**1 mark**

MAXIMUM FOR PART 22: 4 MARKS

23 *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]

Award up to 2 marks for <u>each</u> significant point of comparison made.

Identifies a significant point of comparison. Makes accurate use of the data to support the comparison identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant point of comparison but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given. **OR** Identifies a significant feature of one data series with accurate use of the data (including the unit of measurement) but no comparison is made.	**1 mark**

If a student identifies more than 2 significant points of comparison, reward the best two.

Significant points include:

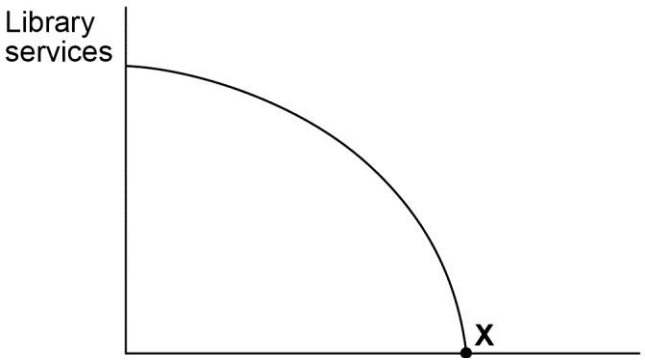
- the percentage of people aged 16–24 and 75+ who had visited a library in England was lower for both groups at the end of the period than the beginning, falling from 42.8% to 27.4% for the 16–24 group and from 35.0% to 34.3% for the 75+ group
- at the start of the period, the percentage of people was higher for those aged 16–24 than for the 75+ group, at 42.8% and 35.0% respectively in 2008/09, whereas at the end of the period, the percentage of people aged 16–24 was lower than the 75+ group at 27.4% and 34.3% respectively in 2015/16
- the percentage visiting was highest in 2008/09 for the 16–24 group at 42.8% but highest in 2011/12 for the 75+ group at 38.9%
- the percentage visiting was lowest in 2015/16 for the 16–24 group, at 27.4% but lowest in 2014/15 for the 75+ group at 31.6%
- the range of the percentage visiting was greater for the 16–24 group at 15.4% (points, from 27.4% to 42.8%) than for the 75+ group at 7.3% (points, from 31.6% to 38.9%)
- the greatest decrease in the percentage visiting for the 16–24 group was between 2009/10 and 2010/11 from 40.0% to 34.4%, ie 5.6% (points but allow the greatest relative decrease from 33.4% to 28.5% between 2013/14 and 2014/15), whereas the greatest decrease for the 75+ group was between 2012/13 and 2013/14 from 36.5% to 33.3%, ie 3.2% (points)
- the greatest increase in the percentage visiting for the 16–24 group was between 2012/13 and 2013/14 from 32.3% to 33.4%, ie 1.1% (points), whereas the greatest increase for the 75+ group was between 2009/10 and 2010/11 from 32.9% to 37.1%, ie 4.2% (points)
- the percentage of people visiting fluctuated throughout the period for both age groups, eg for those aged 16–24, it rose from 32.3% to 33.4% in 2012/13 to 2013/14, before falling the following year to 28.5%, whereas for those aged 75+, it fell in 2013/14 to 2014/15 from 33.3% to 31.6% before rising the next year to 34.3%

MAXIMUM FOR PART 23: 4 MARKS

24 *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]***

The expected diagram involves a curve bowed out from the origin (or allow a straight line) between two appropriately-labelled axes, with an X where the curve (or line) meets the 'other local government services' axis.



Accurately drawn production possibility curve and an X showing where the curve (or line) meets the 'other local government services' axis	**4 marks**
Accurately drawn production possibility curve and an X showing where the curve (or line) meets the 'other local government services' axis but with at least one axis label missing or inappropriate	**3 marks**
Accurately drawn production possibility curve with appropriately-labelled axes but no, or an incorrectly positioned, X	**2 marks**
Accurately drawn production possibility curve with at least one axis label missing or inappropriate and no, or an incorrectly positioned, X **OR** Appropriately labelled axes but with an incorrect or missing curve.	**1 mark**

Note: A title is not required
If the axes labels are reversed, the X should be where the curve meets the vertical axis. Appropriate labels are 'libraries' or 'library services' and 'other local government' or 'other local government services'
The exact shape of the PPC does not matter but if the PPC does not touch both axes <u>1 mark</u> should be deducted.

MAXIMUM FOR PART 24: 4 MARKS

25 ***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 started in 2005'.*

*Explain **two** reasons why the demand for library services has fallen.*

[10 marks]

	An answer that:	**Max 10 marks**
Level 3	• identifies two valid factors • shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles **and/or** good use of data to support the response • includes well-focused analysis with a clear, logical chain of reasoning • may include a relevant diagram to support their explanation	**8-10 marks**
Level 2	• identifies at least one valid factor • shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles **and/or** data to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places • may include a relevant diagram to support their explanation	**4-7 marks**
Level 1	• identifies at least one valid factor • shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • demonstrates very limited ability to apply relevant economic principles **and/or** data to the question • may include some very limited analysis but the analysis lacks focus **and/or** becomes confused • may include a diagram but the diagram is likely to be inaccurate in some respects or is inappropriate.	**1-3 marks**

Relevant issues include:

- meaning of 'demand' (for library services)
- availability and price of substitutes – books from elsewhere, eBooks, other activities
- cross elasticity of demand
- changes to technology and lifestyles
- tastes/preferences
- income
- other factors affecting demand, eg less free time, lack of promotion and awareness of what libraries offer.

MAXIMUM FOR PART 25: 10 MARKS

26 ***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]

Areas for discussion include:

- recent changes affecting public libraries, eg less free time, alternatives, changes in technology and lifestyles
- what public libraries can offer, eg health information, help local businesses to start up, venue for community events
- promotion of lifelong learning, helping people to live healthier and happier lives, plus provision of mobile libraries in rural areas, in terms of both private and external benefits
- internet access and help to develop new skills in relation to increased labour mobility and effects of this
- background to funding cuts and opportunity cost of providing public libraries
- alternatives: closure, transfer to community groups and/or volunteers, charging for services, fundraising, closer links with businesses and other local organisations, asking wealthy donors for support, transfer to central government
- pros and cons of provision by local authorities and at least one other method
- how markets and prices allocate resources
- possible market failures – positive and negative externalities; libraries as a merit good; inequality and inequity; immobility of labour
- impact on users – economic welfare/standard of living, etc.
- market failure versus government failure
- the significance of other data included in the Extracts, eg what has happened in different places, spending in comparison with estimate of 'life satisfaction' per person, significance of moral and political judgements, literacy ranking
- an overall assessment of whether public libraries should or should not continue to be provided by local authorities.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the student's response the question.

Use the levels mark scheme on page 5 to award students marks for this question.

MAXIMUM FOR PART 26: 25 MARKS

Context 2 AGRICULTURE **Total for this context: 50 marks**

27	*Define 'minimum price' **Extract E** (line 6).*	***[3 marks]***

Level of response	Response	Max 3 marks
1	• A full and precise definition is given.	**3 marks**
2	• The substantive content of the definition is correct, but there may be some imprecision or inaccuracy.	**2 marks**
3	• Some fragmented points are made.	**1 mark**

Examples of acceptable definition worth 3 marks:

The lowest (but not 'minimum') amount/price that can be charged by law/regulation/government
A price floor set by law/regulation/government
A price below which it is illegal to trade

Examples of a definition worth 2 marks:

The lowest amount/price that can be charged
A price floor
A price over the equilibrium set by law/regulation/government

Examples of a definition worth 1 mark:

Price set by the government (minimum not defined)
A price over the equilibrium

MAXIMUM FOR PART 27: 3 MARKS

***28 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]

For the correct answer: 7706	**4 marks**
For the exact answer, not corrected to the nearest farm: 7706.4, also allow 7707	**3 marks**
For the correct reduction in farms but not deducted from 9633: 1927 or 1926.6 **OR** For the correct calculation but the wrong answer: eg (80/100) x 9633 or 9633 – (0.2 x 9633)	**2 marks**
For the correct method for calculating 20% of 9633, but the wrong answer	**1 mark**

MAXIMUM FOR PART 28: 4 MARKS

29 *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]

Award up to 2 marks for <u>each</u> significant point of comparison made.

Identifies a significant point of comparison. Makes accurate use of the data to support the comparison identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant point of comparison but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given. **OR** Identifies a significant feature of one data series with accurate use of the data (including the unit of measurement) but no comparison is made.	**1 mark**

If a student identifies more than 2 significant points of comparison, reward the best two.

Significant points include:

- agricultural employment was lower at the end of the period than the beginning, falling from 389 000 to 370 000, whereas the index of output increased from 97.1 to 111.4
- agricultural employment was highest in 2012 at 426 000, whereas output peaked at an index of 115.3 in 2015
- agricultural employment was lowest in 2015 at 368 000, whereas output was lowest at an index of 96.5 in 2010
- agricultural employment was lowest in 2015 at 368 000, when the index of output was highest at 115.3
- the greatest decrease in agricultural employment was between 2012 and 2013 from 426 000 to 369 000, ie a fall of 57 000, whereas the greatest decrease in output was between 2011 and 2012 from an index of 107.1 to 99.3, ie a fall of 7.8 index points
- the greatest increase in both agricultural employment and output was between 2013 and 2014, when employment rose from 369 000 to 419 000, ie a rise of 50 000 and output rose from an index of 100.0 to 113.9, ie a rise of 13.9 index points
- agricultural employment and output both fluctuated throughout the period, eg between 2010 and 2011, employment fell from 419 000 to 404 000, before rising the following year to 426 000, whereas the index of output rose from 96.5 to 107.1 between 2010 and 2011 before falling the next year to 99.3.

Notes: **Do not allow that employment is higher than output**
Index numbers have no units but valid points should include the word 'index'.

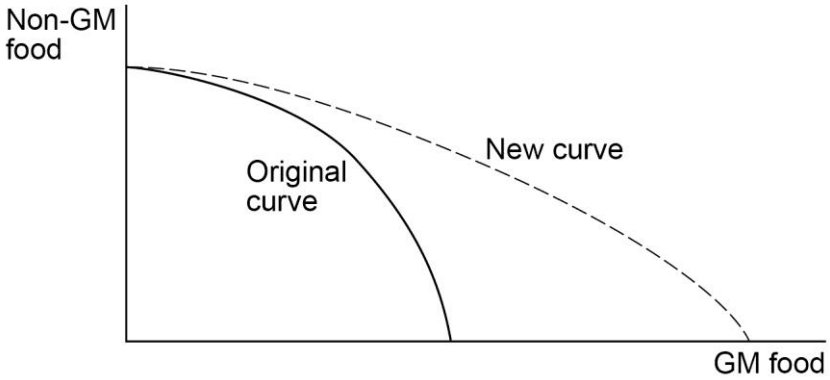
MAXIMUM FOR PART 29: 4 MARKS

30 *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]

The expected diagram involves an initial curve bowed out from the origin (or allow a straight line) between two appropriately-labelled axes, with a second curve (or straight line) extending further along the GM food axis but with no change in its finishing point on the non-GM food axis.



Accurately drawn initial production possibility curve and second curve showing an increase in GM-food production only, with appropriately-labelled axes and a clear indication of which curve is which	**4 marks**
Accurately drawn initial production possibility curve and second curve showing an increase in GM-food production only, with appropriately-labelled axes but no indication of which curve is which **OR** Accurately drawn initial production possibility curve and second curve showing an increase in GM-food production only, with a clear indication of which curve is which but with at least one axis label missing or inappropriate	**3 marks**
Accurately drawn initial production possibility curve with appropriately labelled axes but no, or an incorrect, second curve	**2 marks**
Accurately drawn initial production possibility curve with at least one axis label missing or inappropriate and no, or an incorrect, second curve **OR** Appropriately labelled axes but with an incorrect or missing initial curve.	**1 mark**

Note: A title is not required
If the axes labels are reversed, the new curve will extend further up the vertical axis
The exact shape of the PPC does not matter but if the PPC does not touch both axes <u>1 mark</u> should be deducted
The only appropriate labels are 'GM food' and 'Non-GM food'

MAXIMUM FOR PART 30: 4 MARKS

31 ***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]

	An answer that:	**Max 10 marks**
Level 3	• identifies two valid factors • shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles **and/or** good use of data to support the response • includes well-focused analysis with a clear, logical chain of reasoning • may include a relevant diagram to support their explanation	**8-10 marks**
Level 2	• identifies at least one valid factor • shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles **and/or** data to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places • may include a relevant diagram to support their explanation	**4-7 marks**
Level 1	• identifies at least one valid factor • shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • demonstrates very limited ability to apply relevant economic principles **and/or** data to the question • may include some very limited analysis but the analysis lacks focus **and/or** becomes confused • may include a diagram but the diagram is likely to be inaccurate in some respects or is inappropriate.	**1-3 marks**

Relevant issues include:

- increased demand for milk
- factors increasing demand for milk – increased population, higher real income, tastes/advertising/promotion, price and availability of substitutes and complements, etc.
- reduced supply of milk
- factors reducing supply/increasing costs of production – removal of subsidies, higher wages, higher price of feed, etc.
- other government interventions that might increase the price of milk, eg setting a minimum price above the market equilibrium price.

MAXIMUM FOR PART 31: 10 MARKS

32 ***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]

Areas for discussion include:

- recent changes affecting UK agriculture, eg decision to leave the EU and resulting uncertainty, falling and/or volatile prices, falling value of the pound and higher costs, technological change but lack of finance for improvements
- possible market failures – unstable prices, inequality and inequity, positive and negative externalities, good food as a merit good, GM food as a possible demerit good (or even merit good)
- how markets and prices allocate resources
- the determinants of demand and supply of agricultural goods, plus the significance of elasticity
- objectives of firms and the competitive market process
- alternative forms of government intervention – subsidies, minimum prices, regulation and other controls
- effects on the environment and employment
- impact of alternatives on farmers and consumers, particularly the less well-off
- impact on revenue/expenditure of government
- opportunity cost of intervention in agriculture
- how value judgements influence economic decision making and policy
- strategic arguments
- market failure versus government failure
- the significance of other data included in the Extracts, eg trends in Extract D, % of food consumed in the UK that is produced here, challenge versus opportunity, possible diversification, experience of different farmers, organic versus GM food
- an overall assessment of to what extent, if at all, the UK government should intervene in the agricultural sector.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the student's response the question.

Use the levels mark scheme on page 5 to award students marks for this question.

MAXIMUM FOR PART 32: 25 MARKS