OXFORD
INTERNATIONAL AQA EXAMINATIONS

INTERNATIONAL AS
ECONOMICS
(9640)
Mark scheme

Unit 1: The operation of markets, market failure and the role of government

Specimen 1 2019

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 examiner.

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.

International AS Economics mark scheme

How to mark

Aims

When you are marking your allocation of scripts your main aims should be to:

- recognise and identify the achievements of students

- place students in the appropriate mark band and in the appropriate part of that mark band (high, low, middle)

- record your judgements with brief notes, annotations and comments that are relevant to the mark scheme and make it clear to other examiners how you have arrived at the numerical mark awarded

- put into a rank order the achievements of students (not to grade them – that is done later using the rank order that your marking has produced)

- ensure comparability of assessment for all students, regardless of question or examiner.

Approach

It is important to be **open-minded** and **positive** when marking scripts.

The specification recognises the variety of experiences and knowledge that students will have. It encourages them to study economics in a way that is relevant to them. The questions have been designed to give them opportunities to discuss what they have found out about economics. It is important to assess the quality of **what the student offers**.

Assessment Objectives

This component requires students to:

AO1	Demonstrate knowledge of terms/concepts and theories/models to show an understanding of the behaviour of economic agents and how they are affected by and respond to economic issues.
AO2	Apply knowledge and understanding to various economic contexts to show how economic agents are affected by and respond to economic issues.
AO3	Analyse issues within economics, showing an understanding of their impact on economic agents.
AO4	Evaluate economic arguments and use qualitative and quantitative evidence to support informed judgements relating to economic issues.

The marking grids

The marking grids cover all the Assessment Objectives indicated as being assessed in each question, followed by the indicative content for individual tasks. These have been designed to allow assessment of the range of knowledge, understanding and skills that the specification demands.

The indicative content gives examples of the kind of things students might cover in their responses. They are neither exhaustive nor required – they are simply indicative of what could appear. Other valid content presented in student responses should always be credited.

Using the grids

These levels of response mark schemes are broken down into levels, each of which has descriptors. The descriptors in each level show the performance characteristics of the level. There are the same number of marks in each level. The number of marks per level varies depending upon the total number of marks allocated to the question.

Having familiarised yourself with the descriptors and indicative content, read through the answer and annotate it to identify the qualities that are being looked for and that it shows. You can now check the levels and award a mark.

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 descriptors for that level. The descriptors for the level indicate the different qualities that might be seen in the student's answer for that level.

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 in 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; eg if the response fulfils most but not all of 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.

It is often best to start in the middle of the level's mark range and then check and adjust.

The exemplar materials used during standardisation should be referred to. There will be an answer in the standardising materials that 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 of the same standard, better or worse. 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.

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

Examiners are required to assign each of the students' responses to the most appropriate level according to its overall quality, then allocate a single mark within the level. When deciding upon a mark in a level examiners should bear in mind the relative weightings of the Assessment Objectives and be careful not to over/under credit a particular skill. For example, in question 21 more weight should be given to AO4 than to AO1, AO2 and AO3. This will be exemplified and reinforced as part of examiner training.
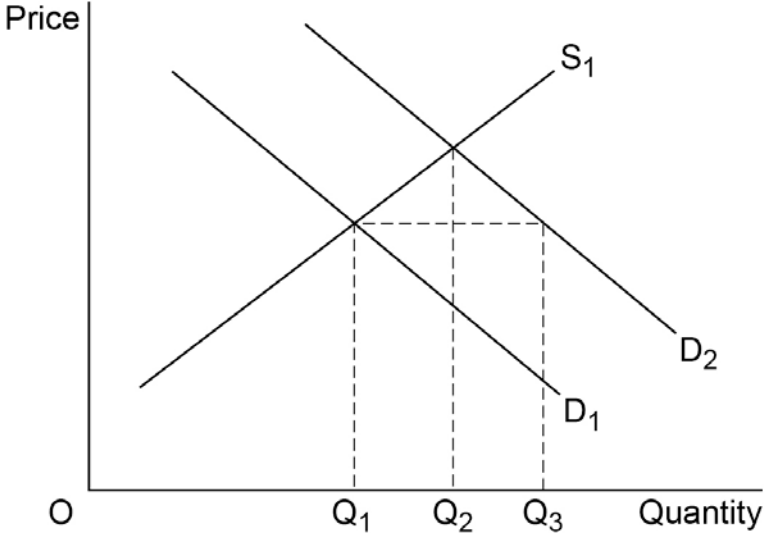
Annotating scripts

Annotating scripts will help you with making accurate judgements and it will help any subsequent markers to identify how you are thinking. Please do not write negative comments about students' work; this is unprofessional and it impedes a positive marking approach.

Section A   **Total for this section: 15 marks**

Question	Part	Marking guidance	Total marks
01		**A positive economic statement** Answer: A (The distribution of income is unequal)	1 AO1=1
02		**A function of the market mechanism** Answer: D (Providing incentives for firms to provide goods to make a profit)	1 AO1=1
03		<table><thead><tr><th>Output of butter (million kilos)</th><th>Output of cheese (million kilos)</th></tr></thead><tbody><tr><td>0</td><td>100</td></tr><tr><td>1</td><td>90</td></tr><tr><td>2</td><td>70</td></tr><tr><td>3</td><td>40</td></tr><tr><td>4</td><td>0</td></tr></tbody></table> **as production of butter increases, the opportunity cost of such production, in terms of cheese** Answer: C (rises)	1 AO2=1
04		 **When the equilibrium price of tea falls from \$5 per kilo to \$4 per kilo, the price elasticity of supply of tea is:** Answer: D (+1)	1 AO3=1

Question	Part	Marking guidance	Total marks
05		**A government builds a new road to reduce traffic congestion on existing roads. This project would inevitably result in government failure if** Answer: A (benefits from the new road were less than the cost of the new road.)	1 AO1=1
06		<table><tr><td>**Company**</td><td>**Market share (%)**</td></tr><tr><td>Firm V</td><td>15</td></tr><tr><td>Firm W</td><td>29</td></tr><tr><td>Firm X</td><td>12</td></tr><tr><td>Firm Y</td><td>22</td></tr><tr><td>Firm Z</td><td>5</td></tr><tr><td>Other</td><td>17</td></tr><tr><td>**Total**</td><td>**100**</td></tr></table> **From the data in the table, what is the three-firm concentration ratio?** Answer: C (66%)	1 AO2=1
07		**Money and specialisation** Answer: C (Money is used as a medium of exchange which aids specialisation)	1 AO1=1
08		<table><tr><td>**Product**</td><td>**Income elasticity of demand**</td></tr><tr><td>Fruit</td><td>0.30</td></tr><tr><td>Cheese</td><td>0.20</td></tr><tr><td>Milk</td><td>0.10</td></tr><tr><td>Eggs</td><td>0.01</td></tr></table> **If incomes increase by 5%, for which of these food items will the quantity demanded increase by more than 1%?** Answer: B (Fruit)	1 AO3=1
09		**In an economy, the median total household wealth was $218 400 whilst the median total household income was $32 100.** Answer: C (The average household wealth was nearly seven times the average household income)	1 AO2=1

Question	Part	Marking guidance	Total marks
10		**The equilibrium market price of a good increases. The establishment of the new equilibrium at a higher price would most likely result from** Answer: C (excess demand at the original price.)	1 AO2=1
11		 **The diagram illustrates that there is a misallocation of resources because in a free market** Answer: D (there is underproduction of the medicine equal to (Q_2 – Q_1).)	1 AO3=1
12		**Set of characteristics can best be used to distinguish between different market structures** Answer: B (The ease of entry to the industry and the degree of product differentiation)	1 AO1=1
13		<table><tr><th>Total output (in units)</th><th>Number of workers</th></tr><tr><td>1000</td><td>100</td></tr><tr><td>2500</td><td>200</td></tr><tr><td>6000</td><td>300</td></tr><tr><td>7000</td><td>400</td></tr><tr><td>8000</td><td>500</td></tr></table> **Referring to the data in the table, what happens to labour productivity as the number of workers increases from 100 to 500? Labour productivity** Answer: D (rises at first and then falls.)	1 AO2=1

Question	Part	Marking guidance	Total marks
14		**If demand for a product is unit elastic, for a given percentage increase in price, total revenue will** Answer: B (remain unchanged.)	1 AO1=1
15		 **According to the diagram, the revenue the government collects from this tax is** Answer: B ($100 000)	1 AO3=1

Section B   **Total for this section: 65 marks**

Question	Part	Marking guidance	Total marks
16	**1**	**Define 'derived demand' Extract B (line 3).** **A full and precise definition is given (3 marks)** Examples: • demand for a good which is an input into another good • demand for a factor of a production/intermediate good that occurs as a result of the demand for the good/service it produces • where the demand for a resource depends on the demand for the good it produces. **The substantive content of the definition is correct, but there may be some imprecision or inaccuracy (2 marks)** Example: • where demand for a factor of production/resource/input is derived from the good it produces (use of word 'derived'). **Fragmented points only (1 mark)** Example: • the quantity of a good people are willing to buy at a given price (definition of 'demand').	**3** **AO1=3**

Question	Part	Marking guidance	Total marks
16	**2**	**Define 'variable costs' Extract B (line 5).** **A full and precise definition is given (3 marks)** Examples: • costs that change directly with output • total costs minus fixed costs. **The substantive content of the definition is correct, but there may be some imprecision or inaccuracy (2 marks)** Example: • costs that change with output (no direction). **Fragmented points only (1 mark)** Example: • costs that change (no direction or link with output).	**3** **AO1=3**

MAXIMUM FOR QUESTION 16: 6 MARKS

Question	Part	Marking guidance		Total marks
17	**1**	**Calculate the ratio of the price of potash in early 2008 to the price of potash in February 2009.** Calculation: 200:875 = 8:35		2 **AO1=1** **AO2=1**

Response	**Max 2 marks**
For the correct answer: 8:35 but also allow 1:4.375 (with or without working shown)	**2 marks**
For the correct values but with the ratio of the price of potash in February 2009 to the price of potash in early 2008: 35:8 or 4.375:1 **OR** For the correct working but with the wrong answer and/or not expressed as a ratio: eg 200 ÷ 875 or 8 and 35	**1 mark**

Question	Part	Marking guidance	Total marks
17	**2**	**If demand falls by 33% as a result of this price rise, calculate, to one decimal place, the price elasticity of demand for potash.** Calculation: (-33 ÷ 337.5) or equivalent = -0.0977… rounding to -0.1 to one decimal place	**4** **AO1=1** **AO2=3**

Response	Max 4 marks
For the correct answer: -0.1 (with or without working shown)	**4 marks**
For the correct value but with incorrect/added units **or** the wrong sign: eg -0.1% or 0.1 **OR** For the correct answer but not to one decimal place: any answer which rounds to -0.1	**3 marks**
For the correct answer but not to one decimal place <u>and</u> with incorrect/added units: 0.1% **OR** For the correct working but the wrong answer: (-33 ÷ 337.5) or equivalent	**2 marks**
For the correct calculation but the wrong answer for the % change in price (with or without correct units): eg (875 – 200) ÷ 200 or equivalent **OR** For the correct answer for the % change in price (with or without units or sign): 337.5% **OR** For the correct equation for PED: % change in QD ÷ % change in P (or equivalent)	**1 mark**

MAXIMUM FOR QUESTION 17: 6 MARKS

Question	Part	Marking guidance	Total marks
18	**1**	**Explain why changes in the price of potash might affect the price of wheat.**	**6** **AO1=2** **AO2=2** **AO3=2**

Examiners are reminded that AO1, AO2 and AO3 are regarded as interdependent. When deciding on a mark all should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the assessment objectives in this question.

Level	Marks	Descriptor
3	5–6	• shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles to support the response • includes well-focused analysis with a clear, logical chain of reasoning
2	3–4	• shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places
1	1–2	• shows limited knowledge and understanding of relevant economic terminology, concepts and principles • includes limited application of relevant economic principles to the question • may include some limited analysis but the analysis lacks focus and/or becomes confused
	0	No creditworthy material

Indicative content:
- identifies potash as a fertiliser used in the production of wheat
- the concept of derived demand, potash is a resource used in wheat production
- an increase in the price of potash will increase the cost of producing wheat
- a change in costs is likely to result in a change in the price of wheat
- use of demand and supply analysis.

Note: Some candidates may support their answer with a diagram/diagrams but this is not needed for full marks.

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
18	2	**To what extent do the data suggest that potash prices affect the price of wheat?** **Use the data in Extract A to support your answer.**	6 **AO2=1** **AO3=1** **AO4=4**

Examiners are reminded that AO2, AO3 and AO4 are regarded as interdependent. When deciding on a mark all should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the assessment objectives in this question.

Level	Marks	Descriptor
3	5-6	• includes sound evidence that indicates the extent to which potash prices affect the price of wheat • includes a supported overall judgement concerning the extent to which potash prices may affect the price of wheat
2	3-4	• includes limited evidence that indicates the extent to which potash prices affect the price of wheat • attempts a judgement concerning the extent to which potash prices may affect the price of wheat but this may not be adequately supported by the data
1	1-2	• includes evidence that does not clearly indicate the extent to which potash prices affect the price of wheat • may include an unsupported judgement concerning the extent to which potash prices may affect the price of wheat
	0	No creditworthy material

Indicative content:

• changes in the price of potash are generally associated with wheat prices moving in the same direction
• the price of potash and wheat both peaked in the same year, at US$459 and US$313 in 2012 but the lowest prices were in different years, US$216 for potash in 2018 but US$167 for wheat in 2016
• in three of the four time periods, the prices of potash and wheat moved in the same direction, eg from 2010 to 2012, prices rose from US$332 to US$459 for potash and from US$224 to US$313 for wheat
• over the whole time period, the prices of both fell, from US$332 in 2010 to US$216 in 2018 for potash and from US$224 to US$210 for wheat
• the relationship doesn't apply for every time period, ie between 2016 and 2018, the price of potash fell from US$260 to US$216 but the price of wheat rose from US$167 to US$210
• some of the changes are very different in % terms, eg between 2012 and 2014, the price of potash fell by 39% but the price of wheat only fell by 9%, whereas between 2010 and 2012, the price of potash rose by 38% and the price of wheat rose by 40%
• conclusion that changes in potash prices have some effect on the price of wheat but are not the only factor/'very important'
• recognition that there could be time lags, eg large fall in potash price between 2012 and 2014 may not have fully affected wheat prices until 2016
• identification of other factors that affect the price of wheat, eg weather.

Note: For wheat prices, allow a margin of error of ±$USD10

Credit valid alternative content.

**MAXIMUM FOR QUESTION 18: 12 MARKS**

Question	Part	Marking guidance	Total marks
19		**Extract C (line 4) states: 'mining for products such as potash also creates environmental costs'.** **With the help of a diagram, explain how the market output for mining may differ from the socially optimum output if there are environmental costs that result from production.**	**9** **AO1=2** **AO2=4** **AO3=3**

Examiners are reminded that AO1, AO2 and AO3 are regarded as interdependent. When deciding on a mark all should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the Assessment Objectives in this question.

Level	Marks	Descriptor
3	7–9	• is well organised and develops one or more of the key issues that are relevant to the question • 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 • includes a relevant diagram, that will, at the top of this level, be accurate and used appropriately to support their explanation
2	4–6	• includes one or more issues that are relevant to the question • 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
1	1–3	• is very brief and/or lacks coherence • 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 inappropriate or inaccurate in some respects, or not used
	0	No creditworthy material

Indicative content

The expected diagram involves two supply curves resulting in two potential equilibrium quantities - Q_1, the market output, only taking into account the private costs of production and Q_2, the socially optimum output, taking into account the social costs of production.
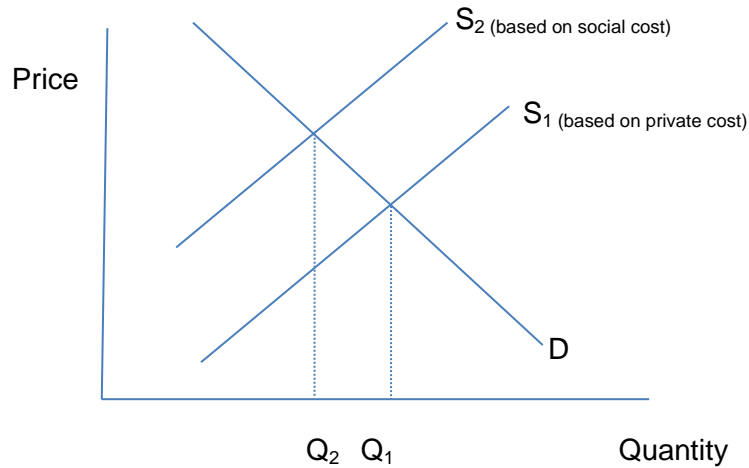
Relevant issues include:

- the nature of mining activities, such as potash

- meanings of/differences between private, external and social cost

- examples of environmental costs of mining

- how/why the market optimum is determined

- how/why this differs from the socially optimum output

- overproduction due to only considering the private costs (and benefits).

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
20		Extract B (lines 10-13) states: 'for many years, the majority of the world's potash was sold through two organisations, which set the same prices. They effectively worked as a monopoly but this arrangement ended in 2013'. **Analyse the likely effects on the market for potash of the ending of the 2013 monopoly arrangement.**	**12** **AO1=3** **AO2=4** **AO3=5**

Examiners are reminded that AO1, AO2 and AO3 are regarded as interdependent. When deciding on a mark all should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the Assessment Objectives.

Level	Marks	Descriptor
3	9–12	• is well organised and develops one or more of the key issues that are relevant to the question • 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 that is accurate and used appropriately to support their explanation
2	5–8	• includes one or more issues that are relevant to the question • 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
1	1–4	• is very brief and/or lacks coherence • 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
	0	No creditworthy material

Indicative content:

- meaning of monopoly
- likely effects of firms working together, eg on price, choice, etc
- impact of end of arrangement on competition
- analysis of the possible impact on costs, perhaps through loss of economies of scale
- analysis of the likely impact on price and output
- analysis of the likely impact on other aspects of the market for potash, eg efficiency, investment, research and development, etc
- impact on buyers and sellers
- possible short-run and long-run effects

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
21		**Extract C (lines 23-25) states: 'should agriculture (and related markets such as that for potash), be left to the free market or should governments intervene to support producers of agricultural products?'.** **Use the extracts and your knowledge of economics to assess whether governments should intervene in agricultural markets.**	**20** **AO1=3** **AO2=4** **AO3=5** **AO4=8**

Examiners are reminded that AO1, AO2, AO3 and AO4 are regarded as interdependent. When deciding on a mark all should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the Assessment Objectives in this question. More weight should therefore be given to AO4 than AO1, AO2 and AO3.

Level	Marks	Descriptor
5	17–20	**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.
4	13–16	**Sound, focused analysis and some supported evaluation that:** • is organised, showing sound knowledge and understanding of economic terminology, concepts and principles but some minor errors may be present • 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.
3	9–12	**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 judgements but these aren't well-supported by arguments and/or data.
2	5–8	**A fairly weak response with some understanding that:** • includes some limited knowledge and understanding of economic terminology, concepts and principles is shown 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 some evaluation which is weak and unsupported.
1	1–4	**A very weak response that:** • includes little relevant knowledge and understanding of economic terminology, concepts and principles

Level	Marks	Descriptor
		• includes application to the given context which is, at best, very weak • includes attempted analysis which is weak and unsupported.
	0	No creditworthy material

Indicative content:

- knowledge of agricultural and related markets, such as potash
- possible market failures – monopoly power in some markets, unstable prices, inequality and inequity, positive and negative externalities, food as a 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
- how government intervention could support producers of agricultural products, eg through financing investment and new technologies
- 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 governments
- opportunity cost of intervention in agriculture
- how value judgements influence economic decision making and policy
- strategic arguments
- the significance of other data included in the Extracts, eg trends in Extract A, growing demand for food for both people and animals, environmental impact, degree of competition in individual markets, lack of finance, experience of previous schemes such as the CAP
- market failure versus government failure
- different situations and priorities of different countries
- knowledge of experience of particular countries
- an overall assessment of whether governments should intervene in agricultural markets.

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

Credit valid alternative content.

Assessment Objective grid

	AO1	AO2	AO3	AO4	Total
Section A					
01	1				**1**
02	1				**1**
03		1			**1**
04			1		**1**
05	1				**1**
06		1			**1**
07	1				**1**
08			1		**1**
09		1			**1**
10		1			**1**
11			1		**1**
12	1				**1**
13		1			**1**
14	1				**1**
15			1		**1**
Section B					
16.1	3				**3**
16.2	3				**3**
17.1	1	1			**2**
17.2	1	3			**4**
18.1	2	2	2		**6**
18.2		1	1	4	**6**
19	2	4	3		**9**
20	3	4	5		**12**
21	3	4	5	8	**20**
Unit total	**24**	**24**	**20**	**12**	**80**

	AO1	AO2	AO3	AO4	Total

GET HELP AND SUPPORT

Visit our website for information, guidance, support and resources at oxfordaqaexams.org.uk

You can contact the economics team directly;

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