OXFORD AQA

INTERNATIONAL QUALIFICATIONS

INTERNATIONAL AS

ECONOMICS

EC01

Unit 1 The Operation of Markets, Market Failure and the Role of Government

Mark scheme

January 2025

Version: 1.0 Final

251XEC01/MS

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.

Further copies of this mark scheme are available from oxfordaqa.com

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 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 for the level show the performance characteristics of the level. There is 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 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 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.

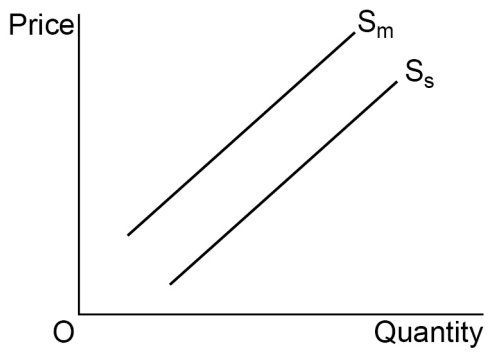
Annotating scripts

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		Which one of the following is the best example of economic activity? Answer: **A** (Consumption of goods)	**1** **AO1 = 1**

Question	Part	Marking guidance	Total marks
02		<table><tr><th>Price ($)</th><th>Demand for bananas (kg)</th><th>Supply of bananas (kg)</th></tr><tr><td>12</td><td>1050</td><td>950</td></tr><tr><td>13</td><td>1000</td><td>1000</td></tr><tr><td>14</td><td>950</td><td>1050</td></tr><tr><td>15</td><td>900</td><td>1100</td></tr></table> Bad weather leads to a fall in the supply of bananas of 100 kg at each price. At which one of the following prices is there now excess supply of 100 kg? Answer: **D** ($15)	**1** **AO2 = 1**

Question	Part	Marking guidance	Total marks
03		Which one of the following diagrams shows positive externalities in production? Answer: **B** 	**1** **AO2 = 1**

Question	Part	Marking guidance	Total marks
04		Which one of the following combinations of characteristics applies to perfect competition? Answer: **B** (High, Low)	**1** **AO1 = 1**

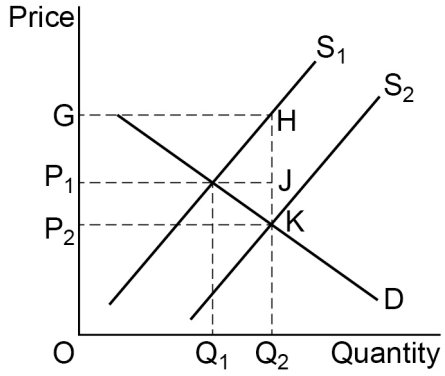
Question	Part	Marking guidance	Total marks
05		<table><tr><th></th><th>Sales of bicycles</th><th>Total cost ($)</th><th>Profit ($)</th></tr><tr><td>Year 1</td><td>1200</td><td>180 000</td><td>48 000</td></tr><tr><td>Year 2</td><td>1500</td><td>210 000</td><td>90 000</td></tr></table> By how much did Kasem increase the price of a bicycle between Year 1 and Year 2? Answer: **B** ($10.00)	**1** **AO3 = 1**

Question	Part	Marking guidance	Total marks
06		Which one of the following explains the characteristic of excludability? Answer: **C** (Non-payers can be prevented from using the product.)	**1** **AO1 = 1**

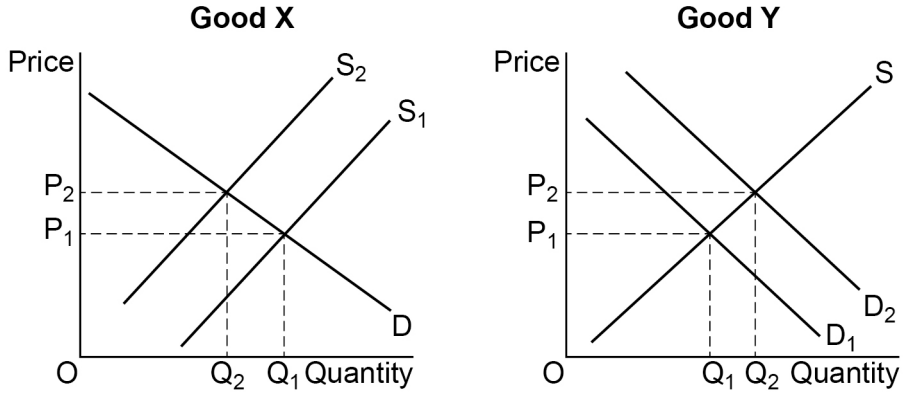
Question	Part	Marking guidance	Total marks
07		When the price of coal is €30 a tonne, the quantity demanded is 400 000 tonnes a week. The price rises to €33 a tonne and the price elasticity of demand is –0.8. What is the new quantity demanded? Answer: **B** (368 000 tonnes)	**1** **AO3 = 1**

Question	Part	Marking guidance	Total marks
08		A government introduces a maximum rent for houses, to reduce the amount paid by families on low incomes. This leads to fewer houses being available for rent. This is an example of which one of the following economic concepts? Answer: **D** (Unintended consequences)	**1** **AO1 = 1**

Question	Part	Marking guidance	Total marks
09		<table><tr><th>Output</th><th>Total cost (£)</th></tr><tr><td>50</td><td>4300</td></tr><tr><td>51</td><td>4284</td></tr><tr><td>52</td><td>4316</td></tr><tr><td>53</td><td>4452</td></tr><tr><td>54</td><td>4590</td></tr></table> At which output does the firm first experience diseconomies of scale? Answer: **C** (53)	**1** **AO3 = 1**

Question	Part	Marking guidance	Total marks
10		 After the subsidy is provided, what is the total amount of revenue received by the producers from the consumers and the government? Answer: **A** ($OGHQ_2$)	**1** **AO2 = 1**

Question	Part	Marking guidance	Total marks
11		Which one of the following suggests that Economics is a social science? Answer: **C** (Economists consider human behaviour to explain how society works.)	**1** **AO1 = 1**

Question	Part	Marking guidance	Total marks
12		 Which one of the following relationships is illustrated by the diagrams? Answer: **A** (Competitive demand)	**1** **AO2 = 1**

Question	Part	Marking guidance	Total marks
13		Which one of the following is a correct combination of a benefit and cost of division of labour to firms? Answer: **C** (Resources are used efficiently, Workers are less flexible)	**1** **AO1 = 1**

Question	Part	Marking guidance	Total marks
14		Which one of the following combinations shows a factor that is most likely to help the firm achieve the associated objective? Answer: **A** (Growth, Recent profit levels have been high)	**1** **AO2 = 1**

Question	Part	Marking guidance	Total marks
15		In 2023, a delivery firm with 80 workers transported 480 000 packages. In 2024, the firm employed 90 workers and transported 648 000 packages. All other things being equal, what was the percentage increase in labour productivity between 2023 and 2024? Answer: **C** (20.0%)	**1** **AO3 = 1**

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

Question	Part	Marking guidance	Total marks
16	**1**	Define 'scarce resource' (**Extract B**, line 12). **A full and precise definition is given (3 marks)** Examples: • factors of production that are limited in supply/finite • not enough factors of production to satisfy wants • finite or limited quantity of inputs. **The substantive content of the definition is correct, but there may be some imprecision or inaccuracy (2 marks)** Examples: • limited resources to satisfy wants • resources that are limited/finite. **Fragmented points only (1 mark)** Examples: • factors of production or inputs • oil, land, the environment (accept other relevant examples).	**3** **AO1 = 3**

Question	Part	Marking guidance	Total marks
16	**2**	Define 'demand' (**Extract C**, line 1). **A full and precise definition is given (3 marks)** Examples: • the quantity that consumers are willing and able to buy at a given price in a given period of time • how much of a good or service is bought at a certain price and time. **The substantive content of the definition is correct, but there may be some imprecision or inaccuracy (2 marks)** Examples: • the quantity that consumers are willing and able to buy at a given price • how much of a good or service is bought in a given time. **Fragmented points only (1 mark)** Examples: • what consumers buy • how much consumers want.	**3** **AO1 = 3**

MAXIMUM FOR QUESTION 16: 6 MARKS

<table>
<tr><th>Question</th><th>Part</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>17</td><td>1</td><td>
Use Extract A (ii) to calculate how many billion cubic metres of natural gas were produced in Russia for each billion cubic metre of natural gas produced in Canada in 2022.

Give your answer as a ratio to two decimal places.

Calculation:

$\frac{699}{205} = 3.40976$

Correct answer is 3.41:1 (2dp)

<table>
<tr><th>Response</th><th>Max 3 marks</th></tr>
<tr><td>For the correct answer: 3.41:1
(with or without working shown)</td><td>3 marks</td></tr>
<tr><td>For the correct answer but not to two decimal places: eg 3.4:1
OR
For the correct answer but not shown as a ratio: 3.41
OR
For the correct answer rounded the wrong way: 3.40:1
OR
For the correct answer but with added units: eg 3.41 billion: 1</td><td>2 marks</td></tr>
<tr><td>For the correct answer but not to two decimal places <u>and</u> with added units: eg 3.4 billion
OR
For the correct answer but not shown as a ratio <u>and</u> with added units: eg 3.41%
OR
For the correct method but the wrong answer</td><td>1 mark</td></tr>
</table>
</td><td>3

AO1 = 1
AO2 = 2</td></tr>
</table>

<table>
<tr><th>Question</th><th>Part</th><th>Marking guidance</th><th>Total marks</th></tr>
<tr><td>17</td><td>2</td><td>
Calculate the price elasticity of supply for natural gas in the UK between 2021 and 2022.

Give your answer to one decimal place.

Calculation:

QS change = 32 billion cubic metres to 38 billion cubic metres:
$\frac{(38-32)}{32} \times 100 = 18.75\%$

Price change = 0.03 to 0.07:
$\frac{(0.07-0.03)}{0.03} \times 100 = 133.33\%$.

PES = $\frac{18.75}{133.33} = 0.140625 = 0.1$ (1dp)

<table>
<tr><th>Response</th><th>Max 3 marks</th></tr>
<tr><td>For the correct answer: 0.1
(with or without working shown)</td><td>3 marks</td></tr>
<tr><td>For the correct answer but not to one decimal place: eg 0.14
OR
For the correct answer rounded the wrong way: 0.2
OR
For the correct answer but with added/incorrect unit or the wrong sign: eg 0.1% or –0.1
OR
For the correct answer for both % change in QS <u>and</u> % change in price: eg 18.75% <u>and</u> 133.33% (with or without %)</td><td>2 marks</td></tr>
<tr><td>For the correct percentage change of either QS <u>or</u> price: eg 18.75% <u>or</u> 133.33% (with or without %)
OR
For the correct equation for PES: % change in QS/% change in P (or equivalent)
OR
For the correct answer but with added/incorrect unit <u>and</u> the wrong sign: eg - 0.1%
OR
For the correct method but the wrong answer</td><td>1 mark</td></tr>
</table>
</td><td>3

AO1 = 1
AO2 = 2</td></tr>
</table>

MAXIMUM FOR QUESTION 17: 6 MARKS

Question	Part	Marking guidance	Total marks
18	**1**	**Extract A** shows natural gas prices for households and natural gas production in selected countries in 2022. Explain how the amount of natural gas production in a country might affect natural gas prices for households in that country.	**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:

- link between production and supply
- identification of how the interaction between demand and supply determines price
- how higher (or lower) natural gas production is likely to increase (or decrease) the amount of natural gas available for sale to households in that country
- identification of the resulting excess supply (or demand) at the old equilibrium price
- explanation of the adjustment process of the market mechanism, resulting in lower (or higher) natural gas prices for households
- the significance of elasticities
- use of demand and supply analysis.

Note: Some students 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 the amount of natural gas production in a country affects natural gas prices for households in that country? 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 the amount of natural gas production in a country affects natural gas prices for households in that country. • Includes a supported overall judgement concerning the extent to which the amount of natural gas production in a country affects natural gas prices for households in that country.
2	3–4	• Includes limited evidence that indicates the extent to which the amount of natural gas production in a country affects natural gas prices for households in that country. • Attempts a judgement concerning the extent to which the amount of natural gas production in a country affects natural gas prices for households in that country.
1	1–2	• Includes evidence that does not clearly indicate the extent to which the amount of natural gas production in a country affects natural gas prices for households in that country. • May include an unsupported judgement concerning the extent to which the amount of natural gas production in a country affects natural gas prices for households in that country.
	0	No creditworthy material

Indicative content:

- Russia has the highest amount of natural gas production (699 billion cubic metres) and the lowest natural gas price for households ($0.01 per kilowatt hour), supporting the expected inverse relationship
- Canada has the second highest amount of natural gas production (205 billion cubic metres) and the second lowest natural gas price ($0.05 per kilowatt hour)
- Brazil has the third highest amount of natural gas production (23 billion cubic metres) but the second highest natural gas price ($0.23 per kilowatt hour)
- Germany has the second lowest amount of natural gas production (5 billion cubic metres) and the highest natural gas price ($0.24 per kilowatt hour)
- South Korea has the lowest level of natural gas production (0 billion cubic metres) but the third highest natural gas price ($0.06 per kilowatt hour)
- although the rank order mainly supports the expected relationship, some of the differences in values are significant, for example, natural gas production is 205 billion cubic metres in Canada compared with no output in South Korea but their natural gas prices for households are very similar, $0.05 per kilowatt hour in Canada compared with $0.06 in South Korea
- recognition that figures relate to only five countries and a single month/year, so it is difficult to make a supported judgement
- identification of other factors influencing natural gas prices such as imports of natural gas, the price of other fuels, demand and levels of indirect tax

- the likely conclusion is that the amount of natural gas production in a country affects natural gas prices for households in that country, with higher natural gas production generally being associated with lower natural gas prices (or vice versa).

Credit valid alternative content.

MAXIMUM FOR QUESTION 18: 12 MARKS

Question	Part	Marking guidance	Total marks
19		**Extract B** (line 22) states: 'Production may also be too low to take full advantage of economies of scale'. With the help of a diagram, explain why producing a low amount of natural gas may result in a high long-run average cost.	**9** **AO1 = 2** **AO2 = 4** **AO3 = 3**

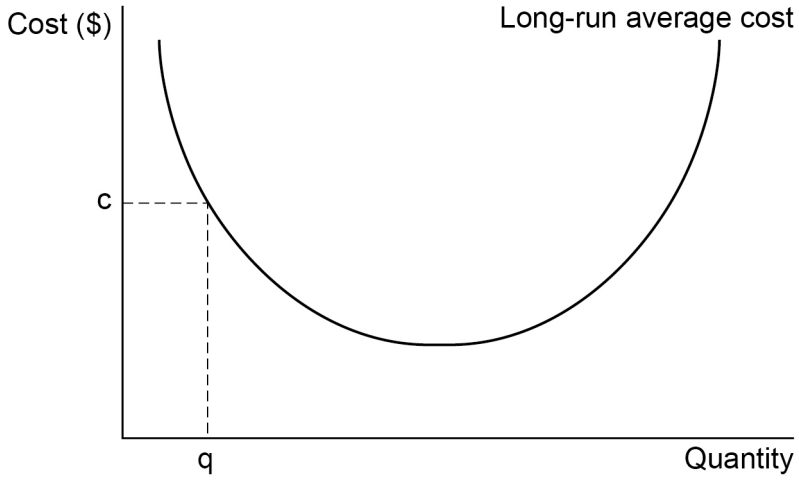
Examiners are reminded that AO1, AO2 and AO3 are regarded as interdependent. When deciding on a mark all should be considered together using the best-fit approach. In doing so, examiners should bear in mind the relative weightings of the Assessment Objectives in this question.

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 is a long-run average cost (LRAC) diagram, showing high long-run average cost (for example at c) at a low output (q). The LRAC curve is likely to be U-shaped but this is not a requirement.

Alternative valid diagrams should be credited.



Relevant issues include:

- meanings of long-run and average cost
- identification of examples of different long-run costs that may be involved in producing natural gas
- definition of economies of scale
- explanation and examples of economies of scale (internal or external) that may be experienced when producing natural gas
- explanation of why long-run average costs are likely to fall with output, at least up to a point
- explanation of why firms producing a small amount of natural gas may not be able to take full advantage of economies of scale and therefore are not able to achieve minimum long-run average cost.

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
20		**Extract C** (lines 6–7) states: 'the price of gas fluctuates, as it does for many commodities including foods such as wheat.' Analyse the likely causes of fluctuations in commodity prices.	**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 fluctuations in prices
- meaning and examples of commodities
- recognition that fluctuating prices are due to large, and maybe frequent, changes in demand and/or supply
- identification that commodity prices are likely to rise if supply falls and/or demand rises and fall if supply rises and/or demand falls
- analysis of reasons for changing demand for commodities:
  - rising incomes in many countries, eg China and India
  - uncertainty about the future

  - speculation
  - lack of substitutes
- analysis of reasons for changing supply of commodities:
  - changes in costs of production
  - time taken to increase supply
  - problems affecting delivery
  - weather factors, especially for agricultural commodities
- government intervention
- analysis of the likely impact on price of these changes in demand and/or supply
- the significance of price elasticity of demand and/or supply.

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
21		**Extract B** (lines 9–10) states: 'In Brazil, some regions encourage fracking, but others do not.' Use the extracts and your knowledge of economics to assess whether governments should encourage fracking or not.	**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 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 • 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 the market for natural gas and fracking
- growing demand for energy and finite supply of non-renewable energy sources
- how markets and price allocate resources
- discussion of possible market failures, eg negative externalities, information failure
- analysis and evaluation of alternative government policies, eg provision, subsidies, removing bans
- benefits of developing a successful natural gas industry through fracking, eg creates jobs, lower prices
- reference to the success of fracking in the US (**Extract B**)
- cost and opportunity cost of government intervention
- evaluation of factors such as the time taken for production to be increased and whether the impact will make a significant difference, especially with growing energy needs in most countries (**Extract B)**
- appreciation that fracking is not possible everywhere, so not an option for some countries
- analysis and evaluation of whether (some) governments should focus more on renewable energy rather than fracking (**Extract C**)
- market failure versus government failure
- experience of different countries
- an overall assessment of whether governments should encourage fracking or not.

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

Credit valid alternative content.

Assessment Objectives 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	2			**3**
17.2	1	2			**3**
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**