OXFORD
INTERNATIONAL AQA EXAMINATIONS

INTERNATIONAL AS
ECONOMICS
EC01

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

Mark scheme

January 2022

Version 1.0 Final Mark Scheme

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 oxfordaqaexams.org.uk

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 language 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 language. 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 how 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.
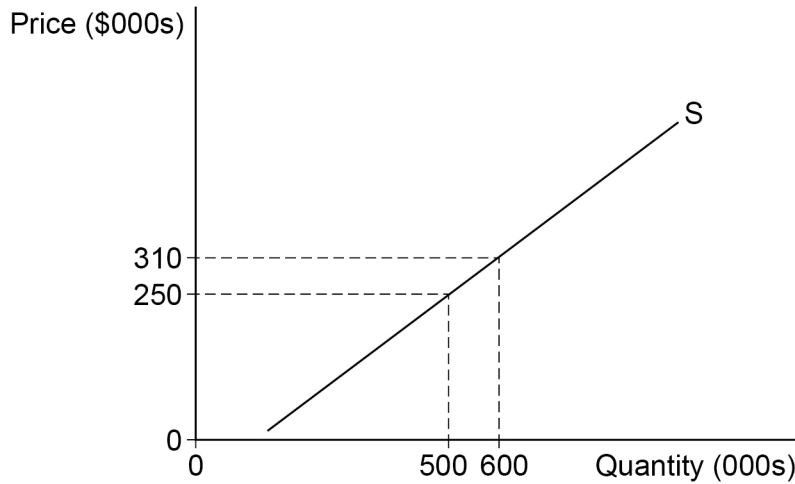
Annotating scripts

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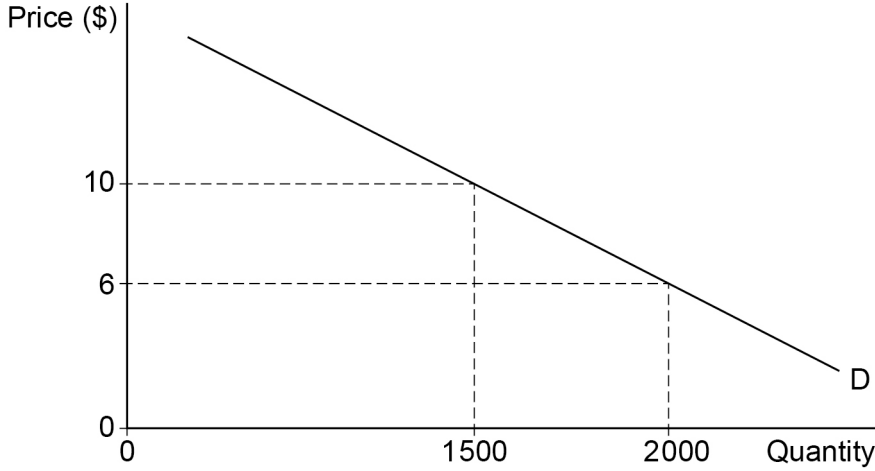
Section A   **Total for this section: 15 marks**

Question	Part	Marking guidance	Total marks
01		Which one of the following statements describes a role of the price mechanism in a free market economy? Answer: **D** (Signal to firms to change their production)	**1** **AO1 = 1**

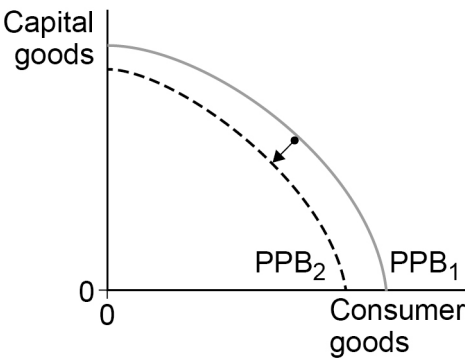| Question	Part	Marking guidance	Total marks
02		**Figure 1** shows the supply curve (S) for houses in a city. **Figure 1** If the price of houses rises from $250 000 to $310 000, the value of price elasticity of supply is: Answer: **B** (Less than 1)	**1** **AO3 = 1**

Question	Part	Marking guidance	Total marks
03		**Figures 2** and **3** below show a change in the demand (D) for Product X and the resulting change in the supply (S) of Product Y. **Figure 2** **Figure 3** Which one of the following relationships is illustrated by the diagrams? Answer: **A** (Composite demand)	1 AO2 = 1

Question	Part	Marking guidance	Total marks
04		A government official makes a number of announcements on inequality. Which one of the following is a normative statement? Answer: **A** (Inequality must be a priority for the government to solve.)	1 AO1 = 1

Question	Part	Marking guidance	Total marks
05		**Figure 4** shows the effect of a change in price on the quantity demanded (D) of a good. **Figure 4** What is the change in revenue when the price falls from $10 to $6? Answer: **A** (A fall of $3 000)	1 AO3 = 1

Question	Part	Marking guidance	Total marks
06		**Table 1** shows the costs of production for a cafe. **Table 1**	1 AO3 = 1

Output (meals)	Total fixed cost (£)	Variable cost per unit (£)
10	3000	5
20	3000	5
30	3000	4
40	3000	3
50	3000	6
100	3000	7

At which level of output is the firm operating at its lowest average cost?

Answer: **D** (100)
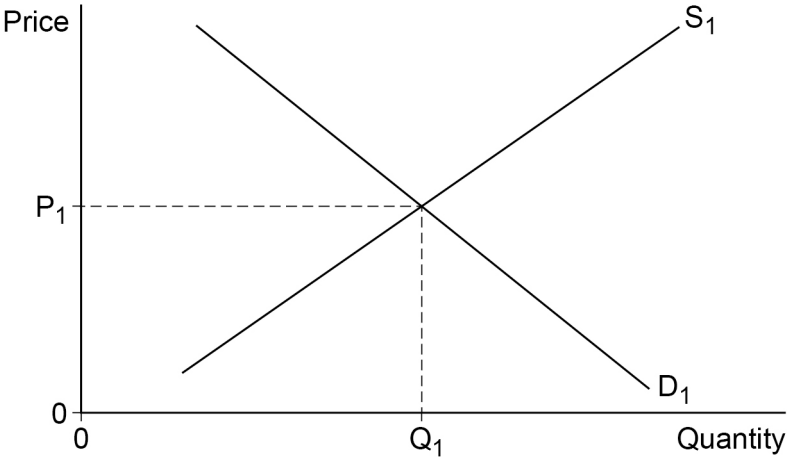
Question	Part	Marking guidance	Total marks
07		Good Y has been classed by the government as being harmful to health when consumed. If the government decides to ban the sale of Good Y, which one of the following effects is most likely to be an unintended consequence of the ban? Answer: **D** (The production of new, more harmful substitute goods.)	1 AO2 = 1

Question	Part	Marking guidance	Total marks
08		The four production possibility boundary (PPB) diagrams below all show changes to an economy. Which one of the PPB diagrams shows the most likely impact of a natural disaster on an economy? Answer: **B** 	1 AO2 = 1

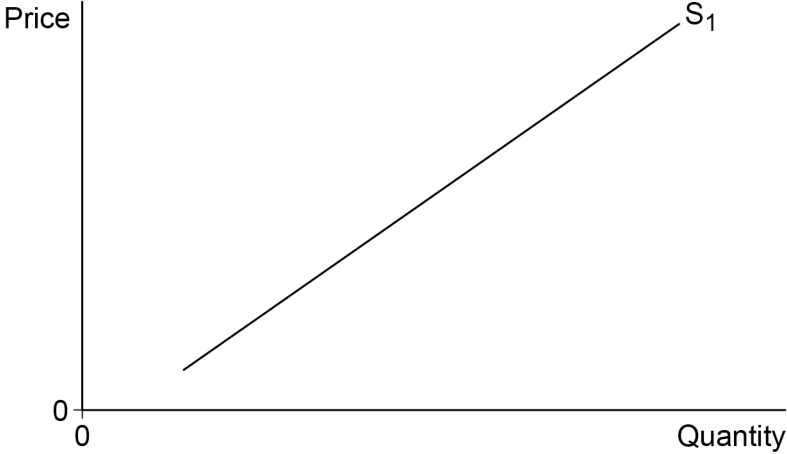| Question	Part	Marking guidance	Total marks
09		Which one of the following occurs when there are economies of scale? Answer: **D** (Total costs increase at a slower rate than output.)	1 AO1 = 1

Question	Part	Marking guidance	Total marks
10		Which one of the following characteristics is always present in a market that is a pure monopoly? Answer: **B** (The concentration ratio is 100%.)	1 AO1 = 1

Question	Part	Marking guidance	Total marks
11		**Figure 5** shows the market for a good. P_1 and Q_1 represent the socially optimal price for the good and the socially optimal level of output. **Figure 5** The good creates negative production externalities. In comparison to the socially optimal level of output, what can be concluded about the price and quantity of the good in the free market? Answer: **C** (Price is below P_1 and quantity is above Q_1)	1 AO2 = 1

Question	Part	Marking guidance	Total marks
12		**Table 2** shows the costs and benefits of a proposed new housing project being planned by a private sector developer. The developer calculates the costs and benefits of the project as follows: **Table 2** | Total private benefits	€300m
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Total third-party benefits	€75m
Total private costs	€200m
Total social costs	€400m	 Which one of the following statements is false? Answer: **C** (The housing project will make the developer a loss.)	1 AO3 = 1

Question	Part	Marking guidance	Total marks
13		The winner of a competition can choose one of the following prizes: • A baseball cap • A cinema ticket • A pizza meal voucher • A t-shirt The winner chooses the baseball cap. Her second choice is the t-shirt and her third choice is the cinema ticket. What is the opportunity cost of choosing the baseball cap? Answer: **A** (The t-shirt)	1 **AO2 = 1**

Question	Part	Marking guidance	Total marks
14		**Figure 6** shows the supply curve for a good. Which one of the following explains the upward slope of the supply curve? **Figure 6** Answer: **A** (A higher price provides an incentive for firms to sell more.)	1 **AO1 = 1**

Question	Part	Marking guidance	Total marks
15		Which one of the following is most likely to prevent a mobile phone network operator already in the market from earning abnormal profit? Answer: **B** (Low barriers to entry into the mobile phone market)	1 **AO1 = 1**

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

Question	Part	Marking guidance	Total marks
16	**1**	Define 'public good' (**Extract C**, line 3). **A full and precise definition is given (3 marks)** Examples: • a good that is non-rival and non-excludable • a good for which the consumption by one person does not affect the consumption of another person and individuals cannot be prevented from consuming the good. • any other accurate explanation of the concepts of non-rivalry and non-excludability. **The substantive content of the definition is correct but there may be some imprecision or inaccuracy. (2 marks)** **Also, this could be an accurate identification or explanation of non-rivalry or non-excludability but not both.** Example: • a good which is not affected by its consumption and you cannot stop people accessing. • a good which when consumed by one individual, can still be consumed by others • a good for which consumption cannot be prevented. **Fragmented points only (1 mark)** **There is an understanding of non-rivalry or non-excludability but not expressed clearly.** Examples: • a good which cannot be made private • a good that is available to all which has no barriers to use	**3** **AO1 = 3**

Question	Part	Marking guidance	Total marks
16	**2**	Define 'cross elasticity of demand' (**Extract B**, line 16).	**3**
		A full and precise definition is given (3 marks) Examples: • the responsiveness of the demand for good A to the change in price of good B • the percentage by which demand for one good changes in response to a given percentage change by which the price of another good changes • the size of the proportional change in demand for one good in response to the size of the proportional change in price for a different good. **The substantive content of the definition is correct, but there may be some imprecision or inaccuracy. Writing the equation without explanation achieves two marks. If the definition does not clearly show an appreciation of relative proportionate change it should be 2 marks or below. (2 marks)** Examples: • how much demand changes compared to the change in price of another good • the responsiveness of good A to a change in the price of good B • $$\frac{\text{\% change in QD of good A}}{\text{\% change in price of good B}}$$ **Fragmented points only (1 mark)** **There must be a link to two different goods for any marks to be awarded.** Examples: • good A change in relation to good B • how good A changes when the price of another good changes • how the demand for good A is affected by good B.	**AO1 = 3**

MAXIMUM FOR QUESTION 16: 6 MARKS

Question	Part	Marking guidance	Total marks
17	**1**	**Extract A** shows the changes in global airline passengers over time and the contribution of the aviation industry to global transport emissions. You are advised to show your working for the calculations below. Calculate the percentage change in global airline passengers between 1995 and 2010. Give your answer to **two** decimal places. Calculation: $\dfrac{(2650 - 1300)}{1300} \times 100 = 103.85\%$	**3** **AO1 = 1** **AO2 = 2**

Response	Max 3 marks
For the correct answer: 103.85% (With or without working shown)	**3 marks**
For the correct answer but not to two decimal places: eg 104% or 103.9% or 103% **OR** For the correct answer but no percentage sign: 103.85 **OR** For the correct answer rounded the wrong way and/or not to two decimal places: eg 103.84% or 103%	**2 marks**
For correct working but with the wrong answer, including the final answer being a minus **OR** For placing the new and original figures the wrong way around and so getting the percentage change from 2010 to 1995 (50.94%) **OR** For the wrong or missing units and not rounded to two decimal places	**1 mark**

Question	Part	Marking guidance	Total marks
17	**2**	In 2014, global CO_2 emissions from aviation were 600 million tonnes. Calculate the global CO_2 emissions produced by trucks in 2014. Give your answer to **two** decimal places. Calculation: Emissions from airlines = 600mt $\dfrac{600}{11}$ = 54.545454 = 1% Emissions from trucks = 34% 54.54 recurring $\times$ 34 = 1854.55mt	**3** **AO1 = 1** **AO2 = 2**

Response	Max 3 marks
For the correct answer: 1854.55mt (With or without working shown)	**3 marks**
For the correct answer but with no or incorrect units: eg 1854.55 or 1854.55 tonnes **OR** for the correct answer but not rounded to two decimal places eg 1854.5mt or 1855mt **OR** For the correct answer rounded the wrong way and or not to two decimal places eg 1854.54mt or 1854.5mt	**2 marks**
For correct working but with the wrong answer **OR** For the wrong units and not rounded to two decimal places	**1 mark**

MAXIMUM FOR QUESTION 17: 6 MARKS

Question	Part	Marking guidance	Total marks
18	1	**Extract C** (lines 1–2) states: 'Worldwide carbon dioxide (CO_2) emissions from commercial flights are rising up to 70% faster than predicted.' Explain why the demand for airline travel might affect global CO_2 emissions.	**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 airline travel as a contributor to carbon emissions
- the concept of derived demand and the demand for airline fuel being dependent on the demand for air travel
- the idea that airline travel has been rising rapidly (according to the extracts) and this will then raise environmental problems
- the concept of negative externalities and the social costs associated with emissions from airline travel
- the idea that global economic growth is likely to drive an expansion of airline travel and so create further carbon emissions.

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 demand for airline travel affects global CO_2 emissions? Use the data in **Extract A** to help 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 demand for airline travel affects global CO_2 emissions. • Includes a supported overall judgement concerning the extent to which the demand for airline travel affects global CO_2 emissions.
2	3–4	• Includes limited evidence that indicates the extent to which the demand for airline travel affects global CO_2 emissions. • Attempts a judgement concerning the extent to which the demand for airline travel affects global CO_2 emissions.
1	1–2	• Includes evidence that does not clearly indicate the extent to which the demand for airline travel affects global CO_2 emissions. • May include an unsupported judgement concerning the extent to which the demand for airline travel affects global CO_2 emissions.
	0	No creditworthy material

Indicative content:

- Air travel rose from 1.3bn passengers in 1995 to 3.25bn (150%) in 2015 while global CO_2 emissions rose from 23 000mt in 1995 to 35 500mt (54%) in 2015.
- Alongside shipping, air travel makes the third largest contribution to all transport emissions (11%).
- As the rate of increase in airline travel begins to slow for airline travel 2010–2015, CO_2 emissions also slow in this period. CO_2 emissions grew at a slower rate (8%) than global passenger numbers (23%).
- Both airline travel and CO_2 emissions peak in 2015 at 3 250m passengers and 35 500mt.
- The proportional rises are not the same in each period. For example, between 1995 and 2000 global airline passenger numbers rose by 31% while CO_2 emissions rose by 7%.
- Conclusion that global airline passenger numbers appear to influence global CO_2 emissions but they are not the only driving force in CO_2 emissions figures.
- There could be consideration of the causal direction of the two variables – do the effects of global warming encourage airline travel?
- Identification of other factors that could affect global CO_2 emissions including other modes of transport eg 40% of global emissions in 2014 came from cars etc.
- Recognition that more passengers does not necessarily mean more CO_2 emissions if planes get more efficient or existing planes are filled to capacity or if long-haul routes are swapped for short haul routes.
- Identification of the data that would help us reach a firmer conclusion, for example changes in airline contributions to total CO_2 emissions over time.

Credit valid alternative content.

**MAXIMUM FOR QUESTION 18: 12 MARKS**

Question	Part	Marking guidance	Total marks
19		**Extract B** (lines 4–5) states: 'The BRIC (Brazil, Russia, India and China) countries contain 40% of the world's population and account for around one-fifth of global GDP.' With the help of a diagram, explain why rising incomes in countries such as Brazil, Russia, India and China are likely to increase the revenue of airlines.	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 shifting the demand for airlines outwards as rising incomes raise the demand for air travel. It is expected that candidates will be able to explain in their writing and/or show on the diagram how higher demand leads to higher revenue. This would be shown diagrammatically by the additional area of revenue Q_1, Q_2, P_1, P_2. Some candidates may use an income elasticity of demand diagram, arguing that rising incomes raise demand for a normal good. This diagram would however not directly show how the revenue of the firm would increase and so this must be covered in the written explanation.
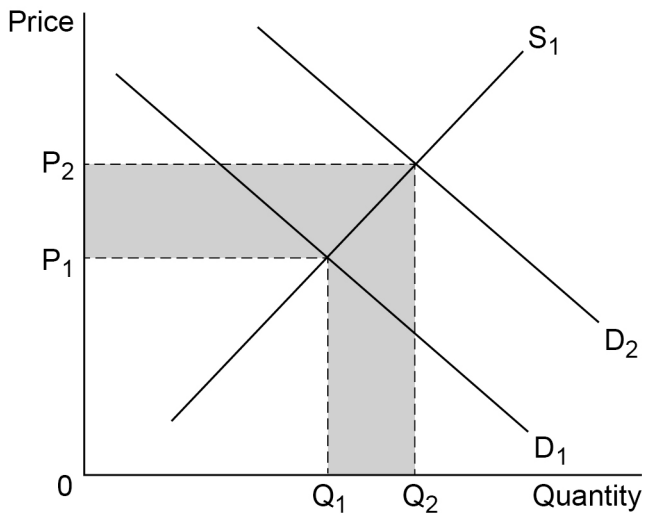
Relevant issues include:

- the link between economic growth, rising incomes and demand for airlines
- the nature of flights as a normal good that responds positively to a rise in income
- the significance of income elasticity of demand
- a flight is a complementary good with other goods that rise in demand when incomes increase such as foreign holidays
- the link between higher employment and possible increasing foreign investment in these economies and a rise in demand for business travel
- the possibility that the supply of flights may be more price inelastic than the PED for flights, allowing prices to rise and revenue to increase dramatically.

Credit valid alternative content.

Question	Part	Marking guidance	Total marks
20		**Extract C** (line 12) states: 'Critics argue that governments should remove the subsidies given to many airlines.' Analyse the likely effects on the market for flights of the removal of government subsidies to airlines.	**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 subsidies
- possible costs that subsidies could have been applied to, for example fuel subsidies, wage subsidies, R&D subsidies etc
- analysis of the likely effect on airline total costs leading to rising prices
- analysis of the likelihood of airlines passing on the higher costs to consumers versus absorbing costs and reducing profits
- analysis of the relative benefits from the subsidy to firms and consumers
- analysis of subsequent impacts on firms such as cost-cutting measures including reducing the quality of the product, reducing labour costs or cutting investment

- analysis of the impact of the removal of subsidies on competition with the possibility that markets will be made more competitive and barriers to entry reduced if selective subsidies for certain national carriers are removed
- the likelihood that consumers will move to substitute markets such as cars and trains
- possible short-run and long-run impacts on the market
- analysis of the price elasticity of demand for flights and the way in which demand will respond to higher prices.

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.

Question	Part	Marking guidance	Total marks
21		**Extract C** (lines 17–18) states: 'taxes on the use of fuel and carbon emissions have been suggested as the most effective way to address the negative social impacts of air travel.' Use the extracts and your knowledge of economics to assess whether indirect taxation is the most effective way to deal with the environmental effects of emissions from air travel.	**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 • 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 environmental impact of airline transport and of the airline market
- knowledge of indirect taxation and the types of indirect taxation that could be applied to airlines and emissions
- the reasons for the indirect taxation of airline emissions relating to negative production and consumption externalities
- impact of indirect taxation on costs of production for firms and prices for consumers
- effect of an indirect tax on different uses of airlines such as business travel, leisure travel and freight – will these sub-markets respond in different ways?
- a comparison with alternative forms of intervention including regulation, pollution permits, subsidising alternative fuels and forms of transport
- determinants of the supply and demand for airline travel and the relative elasticities of the demand and supply for airlines
- possible reaction of firms and consumers to the tax
- benefits of indirect taxation including reductions in demand and a discussion of the trade-off with raising tax revenue
- possible uses of the tax revenue raised and whether this will be done effectively
- problems in setting the correct level of the tax and measuring the size of the third-party effects
- problems and costs in administering the tax and compensating the losers from airline emissions
- problems of global application of a tax
- discussion of different levels of taxation depending on flight distance, flight user and frequency of use
- possible unintended consequences from a tax such as a rise in car use
- discussion of the likelihood that the tax will encourage a substitution by consumers to greener forms of transport and by airline companies to greener planes or fuel sources
- an assessment as to whether possible positive externality effects of airline travel outweigh negative externality effects
- a final judgement of whether indirect taxation is the most effective way to deal with the environmental effects of emissions from air travel and whether alternative interventions should also be considered.

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 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**