AS
ECONOMICS
7135/1

PAPER 1 THE OPERATION OF MARKETS AND MARKET FAILURE

Mark scheme

June 2019

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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.

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SECTION A

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

KEY LIST

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

Level of response marking instructions

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

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

Step 1 Determine a level

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

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

Step 2 Determine a mark

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

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

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

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

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

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

Section B

Context 1 PALM OIL **Total for this context: 50 marks**

2 1 *Define 'specialisation' **Extract B** (line 15).*

[3 marks]

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

Examples of acceptable definitions worth 3 marks:

- different firms/regions/countries/factors of production concentrating on the production of different goods **and/or** services (at least two categories required).

Examples of a definition worth 2 marks:

- different firms/regions/countries/factors of production concentrating on the production of different goods **and/or** services (only one category mentioned)
- different firms/regions/countries/factors of production specialising in the production of different goods **and/or** services (at least two categories required)
- a worker performing one task/a narrow range of tasks.

Examples of a definition worth 1 mark:

- a worker specialising in one task/a narrow range of tasks
- making certain goods **and/or** services.

MAXIMUM FOR QUESTION 21: 3 MARKS

2 2 ***Extract B*** *(lines 15–16) states: 'Another important reason for the increased popularity of palm oil with growers is that it is the most productive oil crop…'*

If 4 hectares of land yield 15 tonnes of palm oil, calculate, to ***one*** *decimal place, the expected yield of sunflower oil from 6 hectares of land.*

[4 marks]

Calculation involves (15 ÷ 8) x (6 ÷ 4) or equivalent = 2.8125 tonnes, which rounds to 2.8 tonnes to one decimal place

Response	**Max 4 marks**
For the correct answer: 2.8 tonnes	**4 marks**
For the correct value but with incorrect or missing units: 2.8 **OR** For the correct answer but not to one decimal place: any answer which rounds to 2.8 tonnes	**3 marks**
For the correct answer but not to one decimal place and with missing/incorrect units: any answer which rounds to 2.8 For the correct calculation but the wrong answer (with or without the correct units): e.g. (15 ÷ 8) x (6 ÷ 4) or equivalent	**2 marks**
For the correct answer for palm oil on 6 hectares (with or without the correct units): 22.5 (tonnes) **OR** For the correct answer for sunflower on 4 hectares (with or without the correct units): 1.9 or 1.875 or 1.87 or 1.88 (tonnes)	**1 mark**

MAXIMUM FOR QUESTION 22: 4 MARKS

2 3 *Use **Extract A** to identify **two** significant features of the changes in the area used for certified sustainable palm oil production over the period shown.*

[4 marks]

Award up to 2 marks for <u>each</u> significant feature identified.

Response	**Max 4 marks**
Identifies a significant feature. Makes accurate use of the data to support the feature identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant feature but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given.	**1 mark**

If a student identifies more than 2 significant features, reward the best two.

Significant features include:

- certified palm oil production was higher at the end than the start of the period, rising from 0.1 million hectares (in 2008) to 2.3 million hectares (in 2017)
- certified palm oil production rose from 0.1 million hectares in 2008 to 2.8 million hectares in 2015 before falling to 2.3 million hectares in 2017
- certified palm oil production was lowest in 2008 at 0.1 million hectares
- certified palm oil production was highest in 2015 at 2.8 million hectares
- the range of certified palm oil production was 2.7 million hectares (between the lowest production of 0.1 million hectares in 2008 and the highest of 2.8 million hectares in 2015)
- the greatest annual increase in certified palm oil production was from just under 2 million hectares in 2013 to 2.6 million hectares in 2014 (a rise of 0.6 million hectares)
- the greatest annual decrease in certified palm oil production was from 2.8 million hectares in 2015 to just under 2.5 million hectares in 2016 (a fall of 0.3 million hectares).

Note: All figures are approximate – allow a margin of error of ± 0.1 million hectares

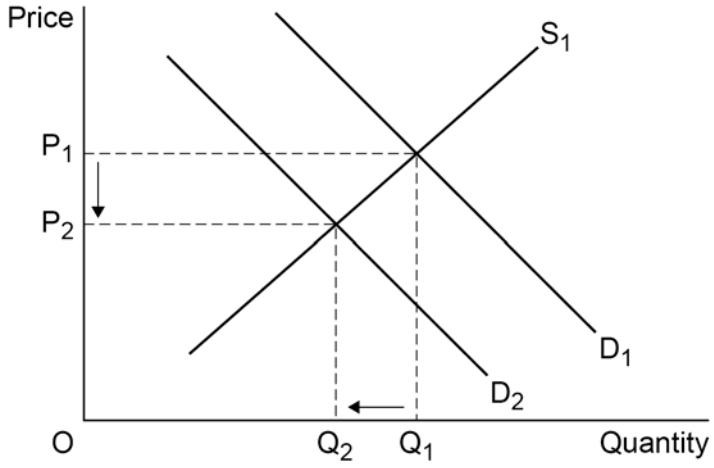
MAXIMUM FOR QUESTION 23: 4 MARKS

2 4 ***Extract B*** *(line 3) states: 'Palm oil can be used as a cheap substitute for butter'.*

Draw a supply and demand diagram showing the effects on the market for butter of a fall in the price of palm oil.

[4 marks]

The correct diagram involves a decrease in demand/shift to the left of the demand curve resulting in a decrease in quantity sold and price.



Response	Max 4 marks
Accurately drawn D/S diagram showing a leftwards shift in D, new equilibrium price and quantity, e.g. P_2Q_2, with both axes and all curves and coordinates correctly labelled (arrows not needed).	**4 marks**
Accurately drawn D/S diagram showing a leftwards shift in D with one label missing/incorrect (axis or curve). **OR** Accurately drawn D/S diagram showing a leftwards shift in D with one coordinate missing/incorrect (P or Q).	**3 marks**
Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D with two labels missing/incorrect. **OR** Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D but <u>also</u> a leftwards shift in supply.	**2 marks**
Accurately drawn D/S diagram showing an initial equilibrium point with both axes, both original curves and both coordinates correctly labelled, eg P_1Q_1. **OR** Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D but <u>also</u> a leftwards shift in supply with one or two labels missing/incorrect.	**1 mark**

Notes: Horizontal axis allow: Quantity of butter, Quantity or Q (but not QD or QS or output).
Vertical axis allow: Price, P, £ or some monetary symbol (but not Price level).

MAXIMUM FOR QUESTION 24: 4 MARKS

2 5 ***Extract C*** *(lines 18–19) states: 'should there be limits on the use of palm oil for biofuel, the so-called 'food versus fuel debate'?'.*

Explain how the increased demand for palm oil used for biofuel is likely to affect the market for palm oil used for food.

[10 marks]

Level of response	An answer that:	Max 10 marks
Level 3	• 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 to support their explanation	**8–10 marks**
Level 2	• 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	**4–7 marks**
Level 1	• 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.	**1–3 marks**

Relevant issues include:

- meaning of 'demand' (for palm oil)
- understanding of the 'food versus fuel debate'
- how palm oil is in composite demand for biofuel and food
- how land used for palm oil for biofuel is in competitive supply for food
- the impact of increased demand for palm oil for biofuel on the price and quantity of palm oil
- the impact of increased demand for palm oil for biofuel on the supply of and demand for palm oil for food
- the impact on buyers and sellers
- the significance of elasticities.

MAXIMUM FOR QUESTION 25: 10 MARKS

2 6 ***Extract B*** *(lines 18–19) states: 'the palm oil industry has much to offer to both consumers and producers in a variety of industries'.*

Use the extracts and your knowledge of economics to evaluate whether more should be done to control the palm oil industry.

[25 marks]

Areas for discussion include:

- recent trends in palm oil production, plus reasons why
- health concerns about other less healthy fats, with palm oil possibly viewed by some as a merit good
- concerns by the World Health Organization that palm oil can also cause health problems, suggesting that palm oil could be seen as a demerit good
- importance of palm oil to consumers, especially the poor, raising possible equity issues if the industry is controlled
- importance of palm oil to growers, especially given its productivity
- importance of palm oil to particular countries, which may affect their desire for control
- the environment as a scarce resource and opportunity cost
- negative externalities arising from production/cutting down forests
- how market forces allocate resources and whether markets always know best
- the work of the RSPO and trends in certified sustainable palm oil production
- other possible 'controls' – limits on deforestation; other regulations, including limits on use for biofuel; tax; etc.
- is there a need for more international cooperation and is this easy to achieve?
- pros and cons of intervention plus who gains and who loses
- market failure versus government failure
- an overall assessment of whether more should be done to control the palm oil industry.

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.

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

MAXIMUM FOR QUESTION 26: 25 MARKS

Context 2 DENTAL CARE **Total for this context: 50 marks**

2 7 *Define 'competitive market' **Extract F** (line 17).*

[3 marks]

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

Examples of acceptable definitions worth 3 marks:

- a market with many buyers and sellers, good market information **and/or** ease of entry and exit (at least two categories required)
- a market where no single buyer or seller can influence market price and output
- a market where firms are trying to outdo their rivals.

Examples of a definition worth 2 marks:

- a market with many buyers and sellers, good market information **and/or** ease of entry and exit (only one category mentioned)
- a market where there are many firms selling identical products (ie confusion with perfectly competitive market).

Examples of a definition worth 1 mark:

- a market with many firms
- a market where firms compete on price.

MAXIMUM FOR QUESTION 27: 3 MARKS

2 8 ***Extract F*** *(line 6) states: 'Currently, about 60 000 people are admitted to hospital each year because of tooth decay…'*

If the population increases by 2.25% in the following year, other things being equal, calculate, to the nearest child, the number of children expected to be admitted to hospital because of tooth decay.

[4 marks]

Calculation involves (102.25 ÷ 100) x (0.75 x 60 000) or equivalent = 46 012.5 (children), which rounds up to 46 013 (children) but also allow 46 012 (children)

Response	**Max 4 marks**
For the correct answer (units not required): 46 012 or 46 013 (children)	**4 marks**
For the exact answer, not rounded to the nearest child: 46 012.5 (children)	**3 marks**
For the increase in the number of children, to the nearest child, but not added to 45 000: 1012 or 1013 For the correct calculation but the wrong answer (with or without the correct units): e.g. (102.25 ÷ 100) x (0.75 x 60 000) or equivalent	**2 marks**
For the exact increase in the number of children but not added to 45 000 (with or without the correct units): 1012.5 **OR** For the correct original number of children (with or without the correct units): 45 000 **OR** For correctly calculating that an increase of 2.25% of 60 000 is 61 350	**1 mark**

MAXIMUM FOR QUESTION 28: 4 MARKS

2 9 *Use **Extract D** to identify **two** significant features of the number of courses of dental treatment (CoT) per 100 000 population in 2016–17.*

[4 marks]

Award up to 2 marks for <u>each</u> significant feature identified.

Response	Max 4 Marks
Identifies a significant feature. Makes accurate use of the data to support the feature identified. Unit of measurement given accurately.	**2 marks**
Identifies a significant feature but only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is inaccurate **and/or** the wrong date is given.	**1 mark**

If a candidate identifies more than 2 significant features, reward the best two.

Significant features include:

- the number of courses of dental treatment was lowest in London at 54 000 per 100 000 population
- the number of courses of dental treatment was highest in the North at 84 000 per 100 000 population
- the range of the number of courses of dental treatment was 30 000 per 100 000 population (between the lowest of 54 000 in London and the highest of 84 000 in the North).

Allow comparisons such as:

- the North was the only region that had more courses of dental treatment than England with 84 000 per 100 000 population, compared to 73 000 per 100 000 in England (allow that only the North and the Midlands and East had more courses of dental treatment than England with the North having 84 000 per 100 000 and the Midlands and East having just over 73 000 per 100 000)
- London was the only region that had fewer courses of dental treatment than England with 54 000 per 100 000 population, compared to 73 000 per 100 000 in England (allow that only London and the South had fewer courses of dental treatment than England with London having 54 000 per 100 000 population and the South having 71 000 per 100 000 population)
- the Midlands and East was the region with the figure closest to the number of courses of dental treatment in England, with both having 73 000 per 100 000 population (allow that both the Midlands and East and the South had a similar number of courses of dental treatment to that of England with the South having 71 000 per 100 000 population)
- the number of courses of dental treatment in the North, at 84 000 per 100 000, was furthest above that of 73 000 per 100 000 population in England
- the number of courses of dental treatment in London, at 54 000 per 100 000, was furthest below that of 73 000 per 100 000 population in England
- London was the region with the figure furthest away from the number of courses of dental treatment in England with 54 000 per 100 000 population as opposed to 73 000 per 100 000 population in England.

Note: All figures are approximate – allow a margin of error of ± 1 000 per 100 000 population

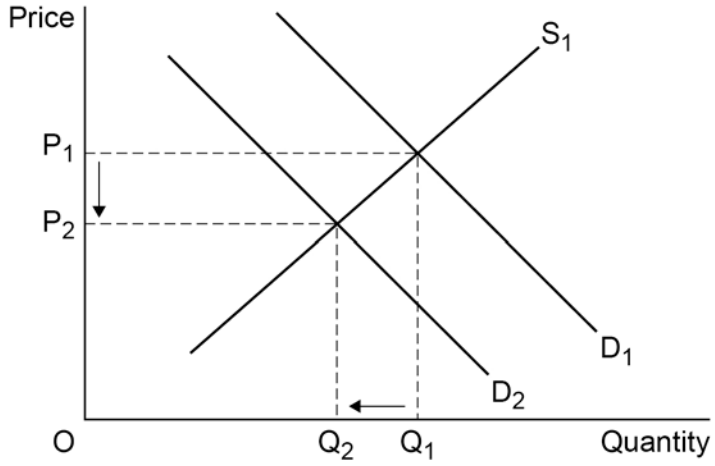
MAXIMUM FOR QUESTION 29: 4 MARKS

3 0 ***Extract F*** *(lines 13–14) states: 'Prices for many dental treatments in Hungary, for example, are about half those of the UK'.*

Draw a supply and demand diagram showing the effects on the market for UK dental care of a fall in the price of dental care abroad.

[4 marks]

The correct diagram involves a decrease in demand/shift to the left of the demand curve resulting in a decrease in quantity sold and price.



Response	Max 4 marks
Accurately drawn D/S diagram showing a leftwards shift in D, new equilibrium price and quantity, e.g. P_2Q_2, with both axes and all curves and coordinates correctly labelled (arrows not needed).	**4 marks**
Accurately drawn D/S diagram showing a leftwards shift in D with one label missing/incorrect (axis or curve). **OR** Accurately drawn D/S diagram showing a leftwards shift in D with one coordinate missing/incorrect (P or Q).	**3 marks**
Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D with two labels missing/incorrect. **OR** Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D but <u>also</u> a leftwards shift in supply.	**2 marks**
Accurately drawn D/S diagram showing an initial equilibrium point with both axes, both original curves and both coordinates correctly labelled, e.g. P_1Q_1. **OR** Accurately drawn D/S diagram showing an initial equilibrium point and a leftwards shift in D but <u>also</u> a leftwards shift in supply with one or two labels missing/incorrect.	**1 mark**

Notes: Horizontal axis allow: Quantity of dental care, Quantity or Q (but not QD or QS or output).
Vertical axis allow: Price, P, £ or some monetary symbol (but not Price level).

MAXIMUM FOR QUESTION 30: 4 MARKS

3 1 ***Extract E*** *(line 9) states: 'a growing population is increasing the demand for dental care'.*

Explain how the increasing demand for dental care is likely to affect the market for dentists.

[10 marks]

Level of response	An answer that:	Max 10 marks
Level 3	• 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 to support their explanation	**8–10 marks**
Level 2	• 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	**4–7 marks**
Level 1	• 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.	**1–3 marks**

Relevant issues include:

- meaning of 'demand' (for dental care and/or dentists)
- how the demand for dentists is in derived demand from demand for dental care
- the impact of increased demand for dental care on the price and quantity of dental care
- the impact of increased demand for dental care on the supply of and demand for dentists
- differences between the impact on the market for NHS, as opposed to private sector dentists
- the significance of elasticities.

MAXIMUM FOR QUESTION 31: 10 MARKS

3 2 ***Extract F*** *(lines 19–20) states: 'is there a need for the government to take more action to improve dental health in the UK, and if so, what should be done?'*

Use the extracts and your knowledge of economics to evaluate whether the UK government should take more action to improve dental health in the UK.

[25 marks]

Areas for discussion include:

- differences in 'courses of treatment' across the regions of England, plus possible explanations for this
- how the NHS dental care system works
- importance of, and recommended frequency of, check-ups with (good) dental care as a possible merit good
- concerns about the ability of the NHS dental care system to cope plus reasons why
- examples of the NHS dental care system failing plus what may happen if NHS treatment can't be accessed
- negative externalities arising from poor dental health and poor dental care as a possible demerit good
- NHS dental care as a scarce resource and opportunity cost
- equity issues
- possible 'actions' – measures to attract and employ more dentists; increased government spending on dental care so NHS dentists are available throughout the UK; increased subsidy for dental care to reduce price or maybe provided free to all; education to reduce children's sugar consumption, plus role of parents; education about dental health generally, possibly including tooth-brushing sessions in schools; tax on sugar-sweetened drinks and possible extension to other products; etc.
- the pros and cons of such government measures/actions to improve dental care
- who gains and who loses from government intervention
- whether there is a need for more action or whether the current system is still 'fit for purpose', with possible reference to the pros and cons of dental tourism
- market failure versus government failure
- an overall assessment of whether the UK government should take more action to improve dental health in the UK.

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.

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

MAXIMUM FOR QUESTION 32: 25 MARKS