A-level
ECONOMICS
7136/1

Paper 1 Markets and Market Failure

Mark scheme

June 2025

Version: 1.0 Final

2 5 6 A 7 1 3 6 / 1 / M S

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.

No student should be disadvantaged on the basis of their gender identity and/or how they refer to the gender identity of others in their exam responses.

A consistent use of 'they/them' as a singular and pronouns beyond 'she/her' or 'he/him' will be credited in exam responses in line with existing mark scheme criteria.

Further copies of this mark scheme are available from aqa.org.uk

Level of response marking instructions

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

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

Step 1 Determine a level

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

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

Step 2 Determine a mark

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

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

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

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

Section A

Below is the levels of response marking grid to be used when marking any 25-mark question.

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 judgements but these aren't 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 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.	**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 is, at best, very weak • includes attempted analysis which is weak and unsupported.	**1–5 marks**

Section A

Context 1 **Total for this context: 40 marks**

0 1 *Using the data in **Extract A (Figure 1)**, calculate the difference between India's share of world exports of rice in 2010 and 2022.*

*Give your answer to **one** decimal place.*

[2 marks]

Calculation:

Market share in 2010: 2.8/35.2 X 100 = 7.955%
Market share in 2022: 22.5/55.6 X 100 = 40.468%.

Difference = 40.468-7.955 = 32.513 (rounded answer using 3dp)

Correct answer: 32.5 percentage points (or 32.5%) (accept -32.5 percentage points)

Response	**Max 2 marks**
For the correct answer, to one decimal place, with the correct units: 32.5 percentage points or 32.5%	**2 marks**
For the correct answer but without the correct units and/or not to one decimal place: eg 32.51 **OR** For the correct method, but the wrong answer, to one decimal place, with the correct units	**1 mark**

MAXIMUM FOR QUESTION 01: 2 MARKS

0 2 *Explain how the data in* ***Extract A (Figure 1 and Figure 2)*** *show that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice.*

[4 marks]

Response:	**Max 4 marks**
• Includes evidence that shows that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice. • Clearly explains how this data is evidence that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice.	**4 marks**
• Includes evidence that shows that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice. • Explanation of how this data is evidence that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice.	**3 marks**
• Includes some evidence that shows that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice. • Limited explanation of how this data is evidence that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice.	**2 marks**
• Includes evidence that does not clearly show that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice. • No explanation of how this data is evidence that the rice export ban by India in 2022 is likely to have had a significant impact on the world price of rice.	**1 mark**

Relevant issues include:

- Figure 1 shows how India has grown its share of world rice exports so that by 2022 it accounted for approximately 40% of the world total
- the country with the second largest market share of world rice exports, Thailand, only accounted for just over 15% of the world total
- the dominance of India in rice exports suggests that the decision to ban exports is likely to have led to a considerable reduction in the supply of rice on the world market
- Figure 2 shows that the price of rice has risen from an index of 109 in August 2022 to an index of 139 in October 2023
- this price increase goes against the general downwards trend of both cereals and all foods over the same period: cereal prices have fallen from a peak of 173 to 125 and food prices have fallen from a peak of 160 to 121
- from June 2023 onwards, the index of rice prices has been higher than the indices for cereals and all food, in contrast to the majority of the period from 2021 onwards where the rice price index was lower
- the data suggest that India has a degree of monopoly power and that the export ban has led to excess demand for rice on the world market, causing the price of rice to rise significantly in 2023.

For Figure 2 allow a margin of error of +/- 2 index points and +/- 1 month

MAXIMUM FOR QUESTION 02: 4 MARKS

0 3 ***Extract B*** *(line 19) states: 'In Nigeria, the demand for rice is very price inelastic'.*

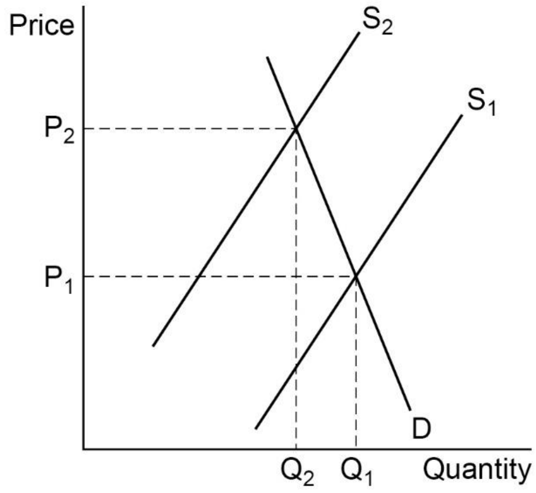
With the help of a diagram, explain how the Indian export ban is likely to have affected the market for rice in Nigeria.

[9 marks]

Level of response	**Response:**	**Max 9 marks**
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 • includes a relevant diagram that will, at the top of this level, be accurate and used appropriately.	**7–9 marks**
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.	**4–6 marks**
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 relevant diagram but the diagram is not used and/or is inaccurate in some respects.	**1–3 marks**

A supply and demand diagram is expected, showing a shift in supply to the left. It is expected that the student's diagram will show an inelastic demand curve.

Expected diagram is:



Relevant issues include:

- definitions of demand, supply, export ban, price-inelastic demand
- explanation of why an Indian ban on rice exports is likely to lead to a reduction in supply to the Nigerian rice market
- explanation of why Nigeria's demand for rice may be price inelastic,
  - it is a staple food with few substitutes
  - it is a popular food and many Nigerians may be reluctant to switch to alternatives even if they did exist
  - rice-importing countries, such as Nigeria, have become dependent on Indian exports and it takes time to switch suppliers
- expenditure on rice takes up a significant proportion of consumer incomes and they may decide to continue to consume it and reduce their consumption of more expensive food and other necessities
- explanation of why the expected outcome in terms of quantity is that it would decrease but proportionately less than the price rises
- explanation of why the expected outcome is that prices would rise and rise substantially.

MAXIMUM FOR QUESTION 03: 9 MARKS

0	4

***Extract C** (lines 6–7) states: 'An alternative would be to impose a maximum price for consumers, as both Sri Lanka and the Philippines have done'.*

Using the data and your knowledge of economics, evaluate the view that imposing a maximum price for rice is the best way for a rice-importing nation, such as Nigeria, to ensure the affordability of a basic food for its citizens.

[25 marks]

Areas for discussion include:

- explanation of the problem faced by rice-importing countries
  - rapidly rising food price inflation
  - supply shortages, hunger and possibly starvation
  - reduced quality
  - market volatility
  - secondary impacts in connected markets, such as reduced expenditure on energy or healthcare
- discussion of the importance of ensuring affordable food supplies for consumers
- explanation of what a maximum price policy is and analysis of how it works
- analysis and evaluation of the possible benefits of a maximum price policy
  - how a maximum price may ensure affordability of rice for consumers
  - how exploitation of consumers by profit-maximising firms may be prevented
  - consumers can plan their food budgets more accurately if the maximum price helps to prevent prices rising too high
- analysis and evaluation of the possible costs of a maximum price policy
  - suppliers/importers may decide to switch supply to countries without a maximum price as they can make more profit by doing so
  - disincentive effects for investment in supply capacity
  - some consumers may be unable to acquire rice
  - the possibility of an illegal/shadow market in rice developing
- analysis and evaluation of other possible policy responses, such as
  - switching to alternative rice suppliers (such as Thailand and Vietnam)
  - import substitution by switching production away from other foods or products
  - reducing dependence on rice by promoting other cereals and foods
  - subsidising rice
  - rationing rice
  - government investment in irrigation, fertilisers, mechanisation and crop science to support rice production
  - income support for citizens whilst rice prices remain high
- analysis and evaluation of leaving the issue to market forces
- evaluation of how what is the best policy may be affected by whether problems in the world rice market are likely to persist
- the objectives of government policy in this area
- market failure arguments
- government failure arguments
- an overall assessment of whether imposing a maximum price for rice is the best way for a rice-importing nation, such as Nigeria, to ensure the affordability of a basic food for its citizens.

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.

Use the level mark scheme on page 4 to award students marks for this question.

MAXIMUM FOR QUESTION 04: 25 MARKS

Context 2 **Total for this context: 40 marks**

0 5 *Using the data in **Extract D (Figure 3)**, calculate the median number of storm overflow hours by water company in 2022.*

[2 marks]

Calculation:

There are two median companies: Wessex Water (130 000) and Southern Water (147 000)
The median is the mean of these two values

(130 000 + 147 000)/2 = 138 500 hours

Response	**Max 2 marks**
For the correct answer, with or without 'hours': 138 500 hours	**2 marks**
For not recognising the units are thousands, eg 138.5 **OR** For the correct method, but the wrong answer, recognising the units are thousands	**1 mark**

MAXIMUM FOR QUESTION 05: 2 MARKS

0 6 *Explain how the data in **Extract D (Figure 4)** show that household water bills have increased in real terms since privatisation in 1989.*

[4 marks]

Response:	**Max 4 marks**
• Includes evidence that shows household water bills have increased in real terms since privatisation in 1989. • Clearly explains how this data is evidence that shows household water bills have increased in real terms since privatisation in 1989.	**4 marks**
• Includes evidence that shows household water bills have increased in real terms since privatisation in 1989. • Explanation of how this data is evidence that shows household water bills have increased in real terms since privatisation in 1989.	**3 marks**
• Includes some evidence that shows household water bills have increased in real terms since privatisation in 1989. • Limited explanation of how this data is evidence that shows household water bills have increased in real terms since privatisation in 1989.	**2 marks**
• Includes evidence that does not clearly show household water bills have increased in real terms since privatisation in 1989. • No explanation of how this data is evidence that shows household water bills have increased in real terms since privatisation in 1989.	**1 mark**

Relevant issues include:

- explanation of what is meant by a 'real terms' increase in household water bills (where water prices are rising faster than prices of goods and services in general)
- from 1990 to 2009 there were only two years in which water prices were not rising at a faster rate than prices of goods and services in general (2000 and 2001), for example, in 2005, water prices increased by 9.5% and the price of all goods and services rose by 2.5%
- in some years, the difference between inflation and water price increases was very significant (6% versus 16% in 1991)
- since 2009, the two price indices have been more closely matched, with water prices rising at a slower rate than inflation in some years but at a higher rate in others, for example, in 2010 the general rate of inflation was 4.9% and water prices increased by 2%, and in 2012, water prices increased by 5.5% and inflation was 3%
- the cumulative effect of two decades of real increases in water prices, followed by a more mixed decade towards the end of the time period means that, overall, household water bills have increased in real terms since privatisation in 1989.

Allow a margin of error of +/- 2% points and +/- 1 year

MAXIMUM FOR QUESTION 06: 4 MARKS

0 7 ***Extract E*** *(line 10) states: 'The minimum efficient scale in the water industry is large'.*

With the help of a diagram, explain why the large minimum efficient scale in the water industry is likely to lead to the market being supplied by a few large firms with monopoly power.

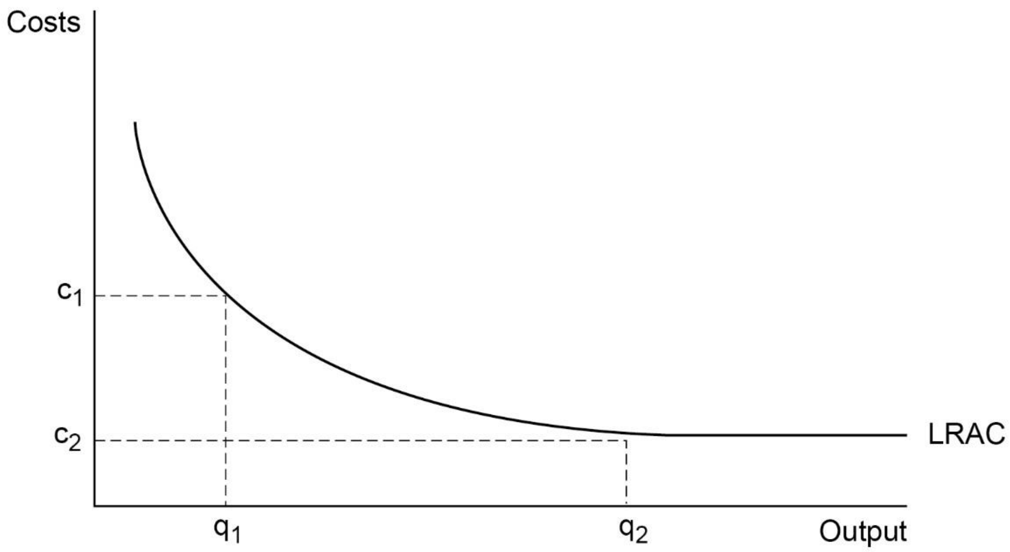
[9 marks]

Level of response	Response:	Max 9 marks
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 • includes a relevant diagram that will, at the top of this level, be accurate and used appropriately.	**7–9 marks**
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.	**4–6 marks**
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 relevant diagram but the diagram is not used and/or is inaccurate in some respects.	**1–3 marks**

A diagram showing long run average cost falling as output increases is expected. Students are likely to indicate the Minimum Efficient Scale where the LRAC flattens out.

A U-shaped LRAC curve is also acceptable provided the MES is shown correctly.

Expected diagram is:



Relevant issues include:

- explanation of minimum efficient scale (MES)
- explanation of monopoly power
- why the MES is large in the water industry
  - high fixed costs resulting from having to install and maintain a network of clean water and sewage pipes
  - large infrastructure and capital investments such as water treatment plants
  - naturally occurring high barriers to entry (such as the need for reservoirs)
- why competition would probably require wasteful duplication of essential infrastructure such as water and sewage pipes
- how economies of scale and hence lower average costs are achieved as a firm in the water industry grows
- linking the large MES in the water industry to the idea that productive efficiency can only be achieved if firms are very large
- explanation of MES of a firm in relation to the size of the market
- explanation of why, if there is more than one (or a few) firms in the industry, AC is likely to be higher than AR (or price)
- explanation that the very high barriers to entry are likely to make it very difficult for other firms to enter the market
- use of examples.

MAXIMUM FOR QUESTION 07: 9 MARKS

0 8 ***Extract F*** *(lines 5–6) states: 'if regulators impose fines, these costs may be passed on to consumers or reduce investment'.*

Using the data in the extracts and your knowledge of economics, assess the view that stronger regulation would be a better policy than bringing the water industry back into public ownership.

[25 marks]

Areas for discussion include:

- explanation of the existing market structure in the water industry, namely 17 local monopolies run by private companies combined with regulation
- explanation of the causes of market failure in the water industry
- evaluation of the performance of water companies in terms of
  - consumer pricing
  - non-price considerations such as customer service
  - environmental externalities such as sewage discharges into rivers and the sea
  - safe and reliable supply of clean water
  - expansion of capacity to deal with rising population
  - investment in infrastructure such as pipes
  - technological advances such as the installation of water meters in homes
- why water companies pay dividends to shareholders and an evaluation of its significance
- evaluation of the significance of water companies missing regulatory targets and the response of the regulators
- the role and performance of Ofwat and the Environment Agency in regulating the water industry
- analysis and evaluation of how stronger regulation and public ownership would compare in relation to issues such as:
  - efficiency
  - initial and ongoing costs to the taxpayer
  - likely impact on externalities
  - likely impact on prices
  - likely impact on investment
  - customer service
- evaluation of what stronger regulation would actually involve, for example larger fines for missing targets
- analysis and evaluation of the problem of regulatory capture in the water industry
- government failure arguments
- overall assessment of the view that stronger regulation would be a better policy than bringing the water industry back into public ownership.

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.

Use the level mark scheme on page 4 to award students marks for this question.

MAXIMUM FOR QUESTION 08: 25 MARKS

Section B

Below is the levels of response marking grid to be used when marking any 15 mark-question.

Level of response	Response	Max 15 marks
3	**A good response provides an answer that:** • is well organised and develops a selection of the key issues that are relevant to the question • shows 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.	**11–15 marks**
2	**A reasonable response provides an answer that:** • focuses on issues that are relevant to the question • shows 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.	**6–10 marks**
1	**A weak response provides an answer that:** • has identified one or more relevant issues • has some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • has very limited application of relevant economic principles to the given context and/or data to the question • might have some limited analysis but it may lack focus and/or become confused.	**1–5 marks**

Section B

Essay 1 **Total for this essay: 40 marks**

0 9 *Explain, with examples, the differences between a private good, a public good and a quasi-public good.*

[15 marks]

Relevant issues include:

- definition of a private good, such as food, a car
- explanation of the terms rival (diminishable) and excludable
- definition of a public good, such as streetlighting
- explanation of the terms non-rival (non-diminishable) and non-excludable
- explanation of the differences between a public good and a private good
- state that pure public goods are non-rival and non-excludable and an explanation of the significance of these characteristics
- the free-rider problem
- explanation of circumstances when a public good may take on some of the characteristics of a private good and become a quasi-public good
- explanation that a quasi-public good exhibits some, but not all, of the characteristics of a pure public good, for example a road that is non-excludable but becomes rivalrous during congested periods, or a road that is non-rival becomes excludable if it is a toll road
- the significance of technological change, eg television broadcasting is now excludable
- the link between public goods and missing markets
- use of examples.

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.

Use the level mark scheme on page 15 to award students marks for this question.

MAXIMUM FOR QUESTION 09: 15 MARKS

1 0 *Evaluate the view that oligopolies serve society well.*

[25 marks]

Areas for discussion include:

- definition of oligopoly
- explanation of what is meant by oligopolies 'serving society well'
- the main characteristics of oligopolistic markets
- oligopolistic markets can be very different in relation to, for example, the number of firms, the degree of product differentiation and ease of entry
- oligopoly can be defined in terms of market structure or in terms of market conduct (behaviour)
- the difference between collusive and non-collusive oligopoly
- the difference between cooperation and collusion
- analysis of the kinked demand curve model and an evaluation of the effects on society
- analysis of the competitive market process in oligopolistic markets and an evaluation of the effects on society
- analysis of the process of creative destruction in oligopolistic markets and an evaluation of the effects on society
- analysis and evaluation of the effects of features of oligopolistic markets such as: non-price competition, the operation of cartels, market power, price leadership, price agreements, price wars and barriers to entry
- analysis of factors which influence prices, output, investment, expenditure on research and advertising in oligopolistic industries and an evaluation of whether or not they are likely to serve society well
- the significance of interdependence and uncertainty in oligopoly
- evaluation of the advantages and disadvantages of oligopoly
- the use of examples
- overall assessment of view that oligopolies serve society well.

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.

Use the level mark scheme on page 4 to award students marks for this question.

MAXIMUM FOR QUESTION 10: 25 MARKS

Essay 2 **Total for this essay: 40 marks**

1 1 *Explain how technological progress can affect productivity, efficiency and firms' costs of production.*

[15 marks]

Relevant issues include:

- definitions of productivity, efficiency and costs of production
- explanation of technological progress
- explanation of different types of cost
- recognition that production involves converting inputs, or the services of factors of production such as capital and labour, into final output
- explanation of different types of efficiency, eg productive, allocative and dynamic efficiency
- the difference between invention and innovation
- explanation of how technological change can lead to increases in productivity
- explanation of why increases in productivity reduce total/average/marginal costs
- explanation of how increases in productivity improve productive efficiency
- explanation of other ways in which increases in productivity and efficiency reduce costs of production such as energy usage, raw material wastage, hours of labour or supply chain inefficiencies
- explanation of how technological change can lead to the development of new products, new production processes, the development of new markets and may destroy existing markets, improving dynamic efficiency
- explanation of how technological change can affect the structure of markets and hence different types of efficiency
- explanation of how the process of creative destruction is linked to technological change and how this affects productivity, efficiency and costs of production
- use of examples.

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.

Use the level mark scheme on page 15 to award students marks for this question.

MAXIMUM FOR QUESTION 11: 15 MARKS

1	2

Assess the view that the main objective of firms is to maximise profits.

[25 marks]

Areas for discussion include:

- definition of ‘firm’ as an organisation that converts factors of production into goods and services via the production process, and how this can cover a wide range of organisations, including private companies, charities and public sector organisations
- explanation that the models that comprise the traditional theory of the firm are based upon the assumption that firms aim to maximise profits
- explanation of the profit-maximising rule (MC=MR)
- analysis and evaluation of whether firms, in practice, are able to identify or calculate their marginal costs and marginal revenue
- evaluation of whether it matters that firms may be unable to calculate MC and MR
- explanation of reasons for and the consequences of a divorce of ownership from control in terms of firms' objectives
- explanation of why firms may have a variety of other objectives including survival, growth, quality, maximising their sales revenue and increasing their market share
- analysis and evaluation of whether other objectives are likely to be more important than, or conflict with, the objective of profit maximisation
- explanation of the satisficing principle and an evaluation of the extent to which it is likely to conflict with the objective of profit maximisation
- evaluation of how objectives may differ between the short run and the long run
- analysis and evaluation of how market structures may influence objectives – for example a firm in a perfectly competitive industry has little option but to pursue profit-maximisation, whereas monopoly firms have greater flexibility
- analysis and evaluation of how different ownership structures may lead to different objectives, for example a family-owned firm versus a public listed company, at least in the short run
- use of examples
- an overall assessment of the view that the main objective of firms is to maximise profits.

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.

Use the level mark scheme on page 4 to award students marks for this question.

MAXIMUM FOR QUESTION 12: 25 MARKS

Essay 3 **Total for this essay: 40 marks**

1 3 *Explain the factors that determine a firm's demand for labour.*

[15 marks]

Relevant issues include:

- definition of 'demand for labour'
- explanation of why the demand for labour is derived from the demand for the good or service produced by the labour
- explanation of the marginal productivity theory of the demand for labour, including an explanation of the marginal physical product and the marginal revenue product of labour
- explanation of how the demand curve for labour shows the relationship between the wage rate and number of workers (or hours) demanded and how a change in the wage rate is likely to affect the demand for labour, how this affected by the PED of labour
- explanation of causes of shifts in the demand curve for labour, eg changes in the demand for the product produced, changes in labour productivity, changes in other factor prices, changes in government spending, eg on infrastructure projects, seasonal determinants
- explanation of how the market structure can have an impact on demand for labour, as monopsony employers are likely to employ fewer workers than those in more competitive labour markets
- use of examples.

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.

Use the level mark scheme on page 15 to award students marks for this question.

MAXIMUM FOR QUESTION 13: 15 MARKS

1 4 *Assess the view that a national minimum wage, such as the UK's National Living Wage, contributes to an improvement in economic welfare.*

[25 marks]

Areas for discussion include:

- explanation of what a national minimum wage (NMW) is
- explanation of what is meant by an improvement in economic welfare
- how the UK has a number of different minimum wages according to worker age and whether they are an apprentice or not
- diagrammatic analysis of the impact of a NMW on competitive labour markets resulting in higher labour supply but potentially lower labour demand
- analysis of why a NMW may reduce the demand for labour in some labour markets and the significance of the price elasticity of demand for labour
- reasons for labour demand falling in response to a NMW
- analysis and evaluation of reasons why a NMW may improve economic welfare, such as
    - may increase disposable incomes of lower-income/lower-skilled workers
    - may incentivise the economically inactive to join the labour force/the unemployed to search harder for jobs
    - may increase worker motivation and therefore labour productivity (efficiency wage theory)
    - may increase firms' incentive to invest in capital to raise labour productivity sufficiently to justify paying the higher wage
    - may prevent exploitation/discrimination of workers in weak bargaining positions
    - may reduce poverty
    - may reduce income inequality
    - market failure arguments
- analysis and evaluation of reasons why a NMW may reduce economic welfare, such as
    - may create unemployment
    - may lead to higher-paid workers receiving wage rises and thus lead to wider inflation without reducing inequality
    - may create a hidden/shadow labour market
    - may lead to jobs being lost to cheaper wage environments abroad
    - may be inflexible in dealing with regional pay differences
    - government failure arguments
- analysis and evaluation of the impact of a NMW in a monopsonistic labour market
- evaluation of the argument that NMWs are more necessary when trade union membership is low and bargaining power of workers is therefore weak
- evaluation of the actual impact of the NMW in the UK (or elsewhere)
- an overall assessment of the view that a national minimum wage, such as the UK's National Living Wage, contributes to an improvement in economic welfare.

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.

Use the level mark scheme on page 4 to award students marks for this question.

MAXIMUM FOR QUESTION 14: 25 MARKS