



Rewarding Learning

ADVANCED
General Certificate of Education
January 2013

Economics

Assessment Unit A2 1

assessing

Business Economics

[AE211]

TUESDAY 22 JANUARY, MORNING

MARK SCHEME

General Marking Instructions

This mark scheme is intended to ensure that the A2 examinations are marked consistently and fairly. The mark scheme provides examiners with an indication of the nature and range of candidate responses likely to be worthy of credit. It also sets out the criteria which they should apply in allocating marks to candidates' responses. The mark schemes should be read in conjunction with these general marking instructions which apply to all papers.

Quality of candidates' responses

In marking the examination paper, examiners will be looking for a quality of response reflecting the level of maturity which may reasonably be expected of 18-year-olds, which is the age at which the majority of candidates sit their A2 examinations.

Flexibility in marking

The mark scheme is not intended to be totally prescriptive. For many questions, there may be a number of equally legitimate responses and different methods by which the candidates may achieve good marks. No mark scheme can cover all the answers which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If an answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner for the paper concerned.

Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for valid responses rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range for any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected for 18-year-old candidates. Conversely, marks should only be awarded for valid responses and not given for an attempt which is completely incorrect and inappropriate.

Types of mark schemes

Mark schemes for questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication. These questions are indicated on the cover of the examination paper. Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

Levels of response

Questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the "best fit" bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

Threshold performance: Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.

Intermediate performance: Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.

High performance: Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

Marking calculations

In marking answers involving calculations, examiners should apply the “own figure” rule. Candidates are not penalised more than once for a computational error.

Quality of written communication

Quality of written communication is taken into account in assessing candidates’ responses to questions that require them to respond in extended written form. These questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication. Where the quality of candidates’ economics is not matched by the quality of written communication, marks awarded will not exceed the maximum for Level 2 in questions which have three levels of response or the maximum for Level 3 in those which have four levels of response.

For conciseness, quality of written communication is distinguished within levels of response as follows:

Level 1: Quality of written communication is limited.

Level 2: Quality of written communication is satisfactory.

Level 3: Quality of written communication is of a high standard.

Level 4: Quality of written communication is excellent.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below:

Level 1 (Limited): The candidate makes only a limited attempt to select and use an appropriate form and style of writing. The organisation of material may lack clarity and coherence. There is little use of specialist vocabulary. Presentation, spelling, punctuation and grammar may be such that intended meaning is not clear.

Level 2 (Satisfactory): The candidate makes a reasonable attempt to select and use an appropriate form and style of writing, supported with appropriate use of diagrams as required. Relevant material is organised with some clarity and coherence. There is some use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are sufficiently competent to make meaning evident.

Level 3 (High Standard): The candidate successfully reflects and uses an appropriate form and style of writing, supported with the effective use of diagrams where appropriate. Relevant material is organised with a high degree of clarity and coherence. There is widespread use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of a sufficiently high standard to make meaning clear.

Level 4 (Excellent): The candidate successfully reflects and uses the most appropriate form and style of writing, supported with precise and accurate use of diagrams where appropriate. Relevant material is extremely well organised with the highest degree of clarity and coherence. There is extensive and accurate use of appropriate specialist vocabulary. Presentation, spelling, punctuation and grammar are of the highest standard and ensure that meaning is absolutely clear.

- 1 (a) It is clear from Fig. 1 that there is a strong positive correlation between wholesale gas prices and retail gas prices. However, the chart does seem to support the claim that energy companies raise retail prices more aggressively, in response to rising wholesale prices, than they cut them when wholesale prices fall. This seems to be particularly true since 2006.

For example, between January and June 2008 wholesale prices increased by 1.3 p/kWh, from 1.9 p/kWh to 3.2 p/kWh. At the same time retail prices increased by 0.9 p/kWh from 2.8 p/kWh to 3.7 p/kWh.

However, when wholesale prices fell by 3.5 p/kWh between June 2008 and September 2009 retail prices only fell by 0.2 p/kWh.

However, it should be noted that the evidence is not clear cut since there are periods when wholesale gas prices are rising and yet retail prices have remained unchanged, e.g. January to April 2010.

Max [3] for explanation that retail prices seem to rise more aggressively than they fall or for stating the evidence is not clear cut

Max [3] for use of appropriate data

Constrained maximum of [5]

Some manipulation of data required for full marks [5]

- (b) A natural oligopoly occurs whenever maximum efficiency is achieved through a small number of suppliers rather than through a large number of competing suppliers.

A natural oligopoly generally occurs in industries where the fixed costs of production are so high that it is not profitable for more than a few firms to enter and compete.

In the UK energy industry there is a "natural" reason for the market being oligopolistic, namely that the Minimum Efficient Scale (MES) occurs at such a large proportion of total output that only a small number of firms could produce at the point where AC are minimised. For example if the MES occurred at 30% of the total output of the energy industry then clearly only three firms could operate in this industry efficiently.

Areas for analysis and discussion include:

- definition of oligopoly
- definition of natural oligopoly
- discussion of economies of scale
- discussion of fixed costs
- relevant examples
- relevant diagrams
- discussion of MES.

Level 1 ([1]–[3])

Candidate shows little understanding of why the UK energy market could be described as a natural oligopoly. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some understanding of why the UK energy market could be described as a natural oligopoly. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows detailed and comprehensive understanding of why the UK energy market could be described as a natural oligopoly. Quality of written communication is of a high standard. [10]

- (c) Prior to 2010 NIE enjoyed a monopoly position in the NI electricity market. In the absence of regulation this monopoly position would have allowed NIE to earn super normal profits. The introduction of competition from Airtricity would reduce this monopoly power and therefore should reduce the ability of NIE to earn supernormal profits. At the time of writing (August 2011) Airtricity had only managed to attain a 5% share of the NI electricity market. Therefore NIE still has significant monopoly power and is likely therefore to still have the ability to earn significant profits.

It should be noted however, that since 1992 electricity prices have been regulated by the Utility Regulator and therefore the ability of NIE to earn excess profits has been restricted.

Areas for analysis and discussion include:

- definition of monopoly
- explanation of supernormal profits
- explanation of how increased competition could reduce profit margins
- impact of increased competition on efficiency
- reference to fact that NIE still maintains a significant market share
- reference to possibility of collusion between NIE and Airtricity
- role of utility regulator
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[3])

Candidate shows little understanding of the likely impact of increased competition on NIE. Quality of written communication is limited.

Level 2 ([4]–[7])

Candidate shows some understanding of the likely impact of increased competition on NIE. There is a degree of analysis and application. Quality of written communication is satisfactory.

Level 3 ([8]–[10])

Candidate shows comprehensive understanding of the likely impact of increased competition on NIE. There is significant economic analysis and application, with some degree of evaluation and quality of written communication is of a high standard. [10]

- (d) There are a range of measures available to government to make the UK energy market work better for consumers. These include:
- the use of regulation – to standardise and simplify tariff charges to make it easier for consumers to compare deals
 - the use of price controls – link retail prices directly to wholesale prices or impose maximum prices
 - the use of taxation – possibility of using windfall taxes
 - breaking up the dominant firms
 - removing barriers to entry to make the market more competitive or contestable – force the dominant firms to auction energy to smaller firms
 - the use of subsidies – to encourage smaller firms to enter market or to promote green energy
 - nationalisation.

Clearly each of these policies has their advantages and disadvantages.

Areas for analysis and discussion include:

- the efficiency of government regulation
- the difficulty in setting an appropriate price (RPI-X formula)
- discussion of regulatory capture
- evaluation based on contestable markets
- the costs and efficiency of nationalisation
- the opportunity cost of using subsidies
- welfare implications of taxation
- appropriate examples
- appropriate diagrams
- reference to UK competition policy.

Level 1 ([1]–[5])

Candidate displays little understanding of the policies that the government could use to make the UK energy market work better for consumers. There is no significant evaluation of the issues and quality of written communication is limited.

Level 2 ([6]–[10])

Candidate provides some understanding of the policies that the government could use to make the UK energy market work better for consumers. There is a degree of evaluation though this may lack depth or be one-sided. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate provides a clear and comprehensive understanding of the policies that the government could use to make the UK energy market work better for consumers. There is significant evaluation and judgement and quality of written communication is of a high standard.

[15]

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2 Non price competition benefits consumer

- (a) Non-price competition refers to all forms of competition other than through the price mechanism. Firms using non price competition usually try to differentiate their goods on the basis of quality, design or reliability. Examples of non-price competition include branding, advertising, customer service and the issue of extended warranties.

There are a number of reasons why firms might use non-price competition:

- in some industries firms find that their cost structures are very similar and therefore there is little scope to compete on price
- firms may avoid price competition because they fear it may lead to price wars and therefore they tend to keep price unchanged and compete in other ways
- firms may simply believe that consumers are more sensitive to changes in style or quality rather than changes in price. This is typical in the clothing industry, therefore clothes retailers will compete in these areas rather than price
- in oligopolistic markets firms may use non-price competition since they are likely to face a kinked demand curve and therefore any change in price will lead to a fall in total revenue
- possibility of collusion.

Areas for analysis and discussion include:

- definition of non-price competition
- reference to similar cost structures
- reference to fear of price wars
- reference to oligopolies
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[5])

Candidate shows little understanding of why firms engage in non-price competition. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate shows some understanding of why firms engage in non-price competition, however this may be incomplete or contain errors. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate shows a comprehensive understanding of why firms engage in non-price competition. Quality of written communication is of a high standard. [15]

- (b) Traditional economic theory assumes that consumers benefit from price competition. Price competition between firms leads to lower prices for consumers which increases consumer surplus. Lower prices also lead to an increase in real income and an increase in efficiency as firms are forced to reduce costs.

However, some economists argue that, in the long term, intense price competition can be detrimental to consumers since it leads to smaller/less efficient firms leaving the industry. This in turn reduces competition which has a negative impact on choice and quality and can lead to higher prices in the long term.

Those economists who support non-price competition argue that it can lead to price stability which allows consumers to plan more effectively. They also contend that it can lead to improved product quality and improved customer service. They argue that non-price competition can lead to a wider choice of products within a product category (just consider the wide range of mobile phones available at each price range) and that advertising that is associated with non-price competition improves information and therefore competition and efficiency.

Areas for analysis and discussion include:

- definition and explanation of price competition
- examples of price competition
- impact of price competition on consumer welfare
- impact of price competition on real incomes
- long term impact of price competition on competition levels and prices
- impact of non-price competition on product quality
- impact of non-price competition on customer service
- impact of non-price competition on choice (positive and negative)
- impact of advertising on information, competition and efficiency
- reference to how some forms of non-price competition are designed to manipulate consumer tastes
- impact of price competition on efficiency

- reference to how some forms of non-price competition can create barriers to entry
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[7])

Candidate shows little understanding of the view that consumers benefit more from non-price competition than from price competition. There is little analysis, application or evaluation and quality of written communication is limited.

Level 2 ([8]–[13])

Candidate shows some understanding of the view that consumers benefit more from non-price competition than from price competition. There is a limited attempt at analysis, application and evaluation and quality of written communication is satisfactory.

Level 3 ([14]–[19])

Candidate shows in-depth understanding of the view that consumers benefit more from non-price competition than from price competition. There is significant analysis, application and evaluation of the arguments and quality of written communication is of a high standard.

Level 4 ([20]–[25])

Candidate shows clear and comprehensive understanding of the view that consumers benefit more from non-price competition than from price competition. There is thorough analysis, application and evaluation of the arguments and quality of written communication is excellent.

[25]

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3 Diseconomies of scale can be avoided

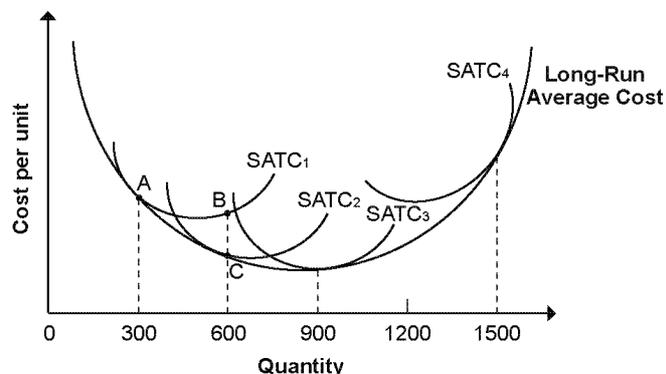
- (a) The long run average cost curve is normally derived from a series of short run average cost curves.

Assume a firm initially produces 300 units of output. Its average costs would equal point A on SATC1. In the short run, at least one factor input is fixed, and therefore if the firm wishes to increase output to 600 units the firm must move along the short run average costs curve to point B.

However, in the long run the firm can increase all the factors and therefore instead of moving up an existing cost curve the firm will move to a larger scale production and therefore a new lower short run average cost curve SATC2 at point C. In reality there could be an infinite number of plant sizes and therefore an infinite number of SATC curves.

The long run average total cost curve (LAC) therefore consists of a series of points on all these different SATC curves.

The LAC curve is the envelope curve of the series of SATC curves.



Areas for analysis and discussion include:

- definition of average cost
- distinction between long run and short run
- explanation of relationship between SRAC curves and LRAC curve
- reference to law of diminishing returns
- reference to internal economies and diseconomies of scale
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[5])

Candidate shows little understanding of the relationship between a firm's short run and long run average cost curves. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate shows some understanding of the relationship between a firm's short run and long run average cost curves. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate shows a comprehensive understanding of the relationship between a firm's short run and long run average cost curves. Quality of written communication is of a high standard. [15]

(b) Internal diseconomies of scale are normally assumed to be the result of management problems. For example:

- in a large organisation it can be difficult to co-ordinate the work of a whole range of different sections and therefore some workers may be underutilised
- large organisations often experience communication problems and therefore important information may get lost or delayed
- it is also difficult to keeping an eye on every worker in a large organisation and therefore slack may occur
- in large organisations industrial relations can deteriorate and worker morale can suffer which reduces productivity.

It could be argued that advances in technology have made communications systems more effective and have made it easier for firms to keep an eye on staff to ensure slack does not occur. Technology has also made it easier to produce detailed production plans to ensure that workers are fully utilised at all times.

Improved management techniques should also help to maintain effective industrial relations which should in turn motivate staff and improve productivity.

The use of outsourcing also allows the firm to grow its output without experiencing the increased cost associated with employing additional workers/resources directly.

It has also been argued that the increased globalisation of markets has significantly reduced the significance of external diseconomies of scale.

However, experience would seem to suggest that when firms grow beyond a certain point they are likely to experience diseconomies of scale despite the impact of globalisation or the use of modern management techniques.

Areas for analysis and discussion include:

- definition/explanation of diseconomies of scale
- distinction between internal and external diseconomies
- examples of diseconomies of scale
- reference to how firms could avoid diseconomies of scale
 - human resource management
 - performance related pay
 - use of ICT
 - use of outsourcing/off shoring
 - full utilisation of technical economies
- impact on LRAC curve
- appropriate diagram
- appropriate examples.

Level 1 ([1]–[7])

Candidate shows little understanding of the view that firms can continue to grow without experiencing internal diseconomies of scale. There is little analysis, application or evaluation and quality of written communication is limited.

Level 2 ([8]–[13])

Candidate shows some understanding of the view that firms can continue to grow without experiencing internal diseconomies of scale. There is a limited attempt at analysis, application and evaluation and quality of written communication is satisfactory.

Level 3 ([14]–[19])

Candidate shows in-depth understanding of the view that firms can continue to grow without experiencing internal diseconomies of scale. There is significant analysis, application and evaluation of the arguments and quality of written communication is of a high standard.

Level 4 ([20]–[25])

Candidate shows clear and comprehensive understanding of the view that firms can continue to grow without experiencing internal diseconomies of scale. There is thorough analysis, application and evaluation of the arguments and quality of written communication is excellent.

[25]

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4 “Green” policies may be counter-productive

- (a) When economists speak about the environment they are primarily referring to the ecosystem, however the term environment can also encompass the society and the economy in which the business operates.

Therefore when we consider the impact of business on the environment we must consider not only their impact on ecosystems but also the society and economy in which they operate.

Businesses use the environment in a number of different ways:

- businesses use the environment as a **source for their raw materials**. Wood, coal, steel, labour, etc.
- businesses use the environment as a **place to conduct their business**. The land on which the factory/office/business is built
- for some businesses the local environment is used as **an amenity**. Some businesses sell tours around national parks or areas of national beauty/interest, other businesses use the seas, for example scuba diving, boat trips, etc.
- some businesses use the environment as a place to **dispose of its waste**.

While most people accept that businesses have a right to use the environment for the first three reasons the most controversy surrounds the last point.

Areas for analysis and discussion include:

- use of environment as a source of raw materials
- over exploitation of resources
- use of environment as a place to conduct business
- use of environment as an amenity
- use of environment as a place to dispose of waste
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[5])

Candidate shows little understanding of the ways in which businesses use and abuse the environment. Quality of written communication is limited.

Level 2 ([6]–[10])

Candidate shows some understanding of the ways in which businesses use and the environment. Quality of written communication is satisfactory.

Level 3 ([11]–[15])

Candidate shows a comprehensive understanding of the ways in which businesses use and abuse the environment. Quality of written communication is of a high standard. [15]

- (b) A growing number of economists argue that government attempts to protect the environment are damaging not only economic welfare and prosperity but may also be leading to greater levels of environmental degradation.

They argue that environmental regulations are often poorly thought out and are expensive for the business to comply with and the government to police. They argue that some initiatives are so poorly designed that they lead to a worsening of the situation. For example, some economists argue that, attempts to encourage the recycling of paper actually leads to a reduction in tree planting and therefore increases CO₂ levels in the atmosphere.

They argue that the use of environmental taxation and tradeable permits increases the cost of production and so leads to higher prices and a reduction in economic welfare. They argue that subsidies for green production distort markets and are costly to administer. Finally some economists even question the science upon which much of the move towards environmentalism is based.

However, other economists argue that environmental pollution is a form of market failure and that governments must take some action to correct the failure. They argue that well designed policies that work with the market can improve outcomes not only for current generations but also future generations.

Areas for analysis and discussion include:

- definition/explanation of market failure
- definition/explanation of negative externalities
- examples of negative environmental externalities
- reference to range of government environmental policies
- impact of these policies on businesses and economic welfare (positive and negative)
- impact of policies on environment (positive and negative)
- reference to government failure
- reference to law of unintended consequences
- reference to examples of failed policies
- appropriate diagrams
- appropriate examples.

Level 1 ([1]–[7])

Candidate shows little understanding of the view that government “green” policies benefit neither businesses nor the environment. There is little significant analysis, application or evaluation and quality of written communication is limited.

Level 2 ([8]–[13])

Candidate shows some understanding of the view that government “green” policies benefit neither businesses nor the environment. There is a limited attempt at analysis, application and evaluation and quality of written communication is satisfactory.

Level 3 ([14]–[19])

Candidate shows in-depth understanding of the view that government “green” policies benefit neither businesses nor the environment. There is significant analysis, application and evaluation of the arguments and quality of written communication is of a high standard.

Level 4 ([20]–[25])

Candidate shows clear and comprehensive understanding of the view that government “green” policies benefit neither businesses nor the environment. There is a thorough analysis, application and evaluation of the arguments and quality of written communication is excellent. [25]

Total

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80