



**ADVANCED**  
**General Certificate of Education**  
**2013**

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## **Economics**

**Assessment Unit A2 1**

*assessing*

**Business Economics**

**[AE211]**

**MONDAY 13 MAY, MORNING**

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# **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 scheme 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 or 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. Some material may be included in the mark scheme for the benefit of teachers and pupils preparing for future examinations. Candidates are not expected to have provided this information. Such material is printed in the mark scheme in italics.

### 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 selects 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 selects 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 Case study: Troubled Times at the Tills

- (a)
- the degree of concentration is normally measured by the combined market share of the top firms in an industry
  - in 2008 the top four firms accounted for 74.5% market share
  - in 2011 the market share of the top four was 75.4%
  - this represents an increase of 0.9 percentage points
  - the market has become marginally more concentrated
  - Tesco is the only firm in the top four to lose market share over the period falling from 31.1% to 30.4%
  - Morrisons had the largest increase in market share rising by 0.7 percentage points from 10.8% to 11.5%
  - the supermarket industry could be described as oligopolistic
  - Tesco could be considered to have a degree of monopoly power since it has more than 25% market share.

[1] for each relevant point up to a maximum of [5]

[5]

- (b) Market share is defined as the proportion of total sales in a market that is accounted for by a particular brand, product or company. It is normally calculated by taking a company's sales revenue and dividing it by the total value of sales in that particular market. Alternatively it can be calculated by taking the company's total volume of sales and dividing it by the total volume of units sold in that market.

While these estimates of market share are very useful, they are not without their problems. For example:

- the figure calculated will vary according to whether it is based on the value of sales or the volume of sales. To illustrate this, consider the likely market share for Marks and Spencer. It should be fairly obvious that a calculation of market share based on the value of sales would give a much higher figure than one based on the volume of sales. This is because Marks and Spencer is likely to sell significantly less groceries than firms such as ASDA. However, each unit sold by Marks and Spencer is likely to be of a much higher value
- when trying to measure the market share of a company like Tesco, you need to consider whether the market you are measuring is for food, groceries or general consumer goods
- you also need to consider whether the market you are measuring is the local market, the regional market or the national market. For example, while Tesco has a UK national market share of approximately 30.4%, its market share may be significantly larger in some smaller geographical areas
- the figure calculated may vary significantly with the period of time over which it is measured
- measuring the market share of large companies such as Tesco is very difficult due to the sheer volume of sales that need to be measured and the fact that it is a moving target.

Areas for analysis and discussion include:

- definition of market share
- explanation of how market share is measured
- reference to differences in figures based on value and volume
- reference to setting geographical boundaries
- reference to setting product boundaries
- reference to the impact of the time frame on the figure
- reference to difficulty in collecting accurate data due to sheer size of the task or the fact that it is a moving target
- appropriate examples.

### **Level 1 ([1]–[3])**

Candidate shows little understanding of why it is difficult to measure market share. Quality of written communication is limited.

### **Level 2 ([4]–[7])**

Candidate shows some understanding of why it is difficult to measure market share. Quality of written communication is satisfactory.

### **Level 3 ([8]–[10])**

Candidate shows detailed and comprehensive understanding of why it is difficult to measure market share. Quality of written communication is of a high standard. [10]

- (c) The introduction of a genuine price war between supermarkets in the UK could have wide ranging economic effects.

Areas for analysis and discussion include:

- in the short run consumers will benefit from lower prices
- profits of some retailers could fall which will impact on shareholders
- tax revenues for government may fall as VAT on each item will decrease
- some smaller firms may be forced out of the market
- in the long run prices may be pushed higher to cover losses in this period
- impact on market concentration
- possibility of increased sales and revenues if demand for groceries is price elastic
- impact on investment plans
- impact on jobs
- impact on suppliers as supermarkets try to pass price reduction down the supply chain to producers
- reference to consumer and producer surplus
- reference to monopsony power
- appropriate examples
- appropriate diagrams
- wider economic implications, e.g. inflation.

**Level 1 ([1]–[3])**

Candidate shows little understanding of the likely economic impact of Tesco's decision to launch a price war. Quality of written communication is limited.

**Level 2 ([4]–[7])**

Candidate shows some understanding of the likely economic impact of Tesco's decision to launch a price war. 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 economic impact of Tesco's decision to launch a price war. There is significant economic analysis and application, with some degree of evaluation and quality of written communication is of a high standard. [10]

- (d) Developments in information and communications technology have fundamentally changed the way businesses sell and distribute their goods and services. New technology such as the Internet and broadband has opened up a whole new world of opportunities for business. These opportunities range from the ability to undertake much more efficient market research to the ability to communicate more effectively with suppliers and customers.

Undoubtedly the single most important development in this area over the last 20 years has been the introduction and growth of e-commerce. The amount of trade conducted electronically has grown dramatically in the UK in recent years with over £100 billion worth of goods and services being traded electronically each year.

With the spread of wireless broadband Internet access and improving levels of consumer confidence in the security of online purchasing, e-commerce seems set to become an even more important feature of business activity in the UK.

However, it should be noted that while developments in technology bring many benefits to firms in terms of increased potential revenue streams, they also bring some drawbacks most notably the cost of the investment needed to make full use of the technology and the increased competition brought about by new online-only retailers who have significantly lower costs.

In addition, while the Internet has made it easier for most consumers to buy products from a much wider range of stores, there are also significant concerns with regard to Internet access and security.

Areas for analysis and discussion include:

- potential for e-commerce
- potential to use technology to improve market research – loyalty cards, etc
- possible increased revenue streams for business
- potential to reduce staffing levels
- potential to reduce need for physical stores – move to virtual stores
- cost of investing in new technology for both firms and consumers
- cost of updating hardware and software on regular basis
- need for improved online security
- increased competition from e-tailers
- potential for lower prices for consumers
- increased choice for consumers
- impact on consumer and producer surplus
- possibility of some consumers being excluded from the market due to lack of access to and competence with technology
- potential loss of welfare due to loss of shopping experience and immediate gratification associated with physical shopping
- impact of technology on firms fixed and variable costs
- impact on profits
- appropriate examples
- appropriate diagrams.

### **Level 1 ([1]–[5])**

Candidate displays little understanding of the impact of new technologies such as smart-phones and the Internet on UK retailers and 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 impact of new technologies such as smart-phones and the Internet on UK retailers and 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 impact of new technologies such as smart-phones and the Internet on UK retailers and consumers. There is significant evaluation and judgement and quality of written communication is of a high standard.

[15]

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## 2 Government attempts to increase competition in UK energy markets

- (a) Barriers to entry are those characteristics of an industry that prevent potential competitors from entering. Some barriers to entry may be naturally occurring while others may be created, either by the firm or the government, in an attempt to reduce competition.

Examples of natural barriers to entry include:

- high costs of entry – some industries require a large initial investment which may be beyond the means of most firms, e.g. energy generation and supply, telecommunications
- economies of scale – in some industries economies of scale occur at very high levels of output which results in only a few firms being able to reach the level of output required to produce efficiently
- ownership by one firm of essential raw materials
- high natural sunk costs.

Examples of artificial barriers to entry include:

- government restrictions – it is illegal to enter some industries without a government licence, e.g. radio broadcast, postal service, sale of alcohol
- brand proliferation – some firms produce a wide range of similar products under different brand names in an attempt to create the perception of a highly competitive market and so deter potential competitors from entering
- saturation advertising – in some cases firms spend huge amounts on advertising in an attempt to deter possible entrants. If new firms wish to compete with the more established firms they will have to spend similar amounts on advertising. However, this is beyond the means of most small firms
- limit and predatory pricing.

Areas for analysis and discussion include:

- definition of barriers to entry
- reference to barriers to exit
- distinction between naturally occurring barriers to entry and artificial barriers to entry
- examples of natural and artificial barriers to entry
- reference to strategic barriers
- appropriate diagrams
- appropriate examples.

### Level 1 ([1]–[5])

Candidate shows little understanding of the difference between natural and artificial barriers to entry. Quality of written communication is limited.

### Level 2 ([6]–[10])

Candidate shows some understanding of the difference between natural and artificial barriers to entry, however this may be incomplete or contain errors. Quality of written communication is satisfactory.



**Level 3 ([11]–[15])**

Candidate shows a comprehensive understanding of the difference between natural and artificial barriers to entry. Quality of written communication is of a high standard.

[15]

- (b) In recent years the government has attempted to reduce the barriers to entry to the energy supply industry. Specifically they have forced incumbent firms to open up their network and infrastructure for use by competitors. This has reduced the cost of entering the UK energy supply sectors and has resulted in an increase in competition.

For example in NI the entry of Airtricity has brought competition to a market which had been dominated by NIE. This increased competition should lead to many benefits including lower price for consumers, improved efficiency, greater choice and higher quality.

However, it should be noted that increasing competition will reduce the ability of firms to earn supernormal profits which may in turn reduce innovation and investment in areas such as infrastructure and green technologies.

Areas for analysis and discussion include:

- impact on efficiency
- impact on prices – while the entry of Airtricity and Firmus into the NI energy market has increased the level of competition, energy prices have continued to rise
- impact on quality and choice
- reference to customer inertia
- analysis of economies of scale
- reference to natural monopolies
- reference to oligopoly
- reference to increased contestability
- impact on consumer and producer surplus
- impact on profits
- impact on investment decisions
- appropriate diagrams
- appropriate examples.

**Level 1 ([1]–[7])**

Candidate shows little understanding of the impact of increased competition in the markets for electricity and gas. There is no significant application, analysis or evaluation and quality of written communication is limited.

**Level 2 ([8]–[13])**

Candidate shows some understanding of the impact of increased competition in the markets for electricity and gas. There is some attempt at analysis and evaluation and quality of written communication is satisfactory.

**Level 3 ([14]–[19])**

Candidate shows in-depth understanding of the impact of increased competition in the markets for electricity and gas. There is significant application, analysis 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 impact of increased competition in the markets for electricity and gas. There is a thorough analysis, evaluation and judgement of the arguments and they are clearly applied to the UK energy market. Quality of written communication is excellent.

[25]

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**3 Water charges on the way in NI**

- (a) The cost of producing a good is normally made up of fixed costs and variable costs. Average cost refers to the total cost of producing a particular quantity of goods divided by the quantity. Whereas marginal cost, refers to the addition to total cost of the production of one extra unit of output. The production of tap water has significant fixed costs, not least in the infrastructure required to store, treat and pump water to individual households. However, once these fixed costs are paid the variable costs of producing water are relatively small and as such the additional cost of producing an extra litre of water is close to zero.

Supplying bottled water on the other hand involves many more variable costs in areas such as raw materials, distribution, labour and energy consumption.

The marginal cost of a litre of tap water will certainly be lower than a litre of bottled water. However, the position with regard to average cost is less clear cut.

Areas for analysis and discussion include:

- distinction between marginal cost and average cost
- distinction between fixed and variable costs
- examples of fixed and variable costs
- distinction between long run and short run
- discussion of the proportion of fixed to variable costs in the water supply industry
- comparison of variable costs in the supply of tap water and bottled water
- appropriate examples
- appropriate diagrams.

**Level 1 ([1]–[5])**

Candidate shows little understanding of why the cost of supplying a litre of tap water is likely to be lower than the cost of supplying a litre of bottled water. Quality of written communication is limited.

**Level 2 ([6]–[10])**

Candidate shows some understanding of why the cost of supplying a litre of tap water is likely to be lower than the cost of supplying a litre of bottled water. Quality of written communication is satisfactory.

**Level 3 ([11]–[15])**

Candidate shows a comprehensive understanding of why the cost of supplying a litre of tap water is likely to be lower than the cost of supplying a litre of bottled water. Quality of written communication is of a high standard. [15]

- (b) The water delivery and sewerage systems in NI are in a state of disrepair. *More than one third of all sewage treatment plants in NI fall below minimum EU standards.*

*In addition it is estimated the water service loses some 250 million litres of water per day as a result of leakage from pipes. This represents about 37% of all treated water and is estimated to cost the water service approximately £47 million per year.*

It is therefore clear that something must be done to upgrade Northern Ireland's water delivery and sewage treatment infrastructure. *The government estimate that approximately £3 billion is needed over the next 20 years to bring the water and sewage system up to date.* They have proposed some form of water charging to cover this cost.

Areas for analysis and discussion include:

- reference to the difficulty in setting an efficient price since marginal costs are practically zero
- reference to the fact that money is needed to improve the water and sewerage infrastructure
- opportunity cost of money spent on improving infrastructure if water charges are not introduced
- reference to efficiency of state provision compared to private provision
- reference to water provision being a natural monopoly
- reference to water as a merit good
- reference to different forms of water charges – metered charges, fixed charges, charges based on rateable value of home
- impact of different forms of water charging on water usage, waste, efficiency and different income groups, e.g.
  - any form of direct payment for water will have a greater impact on people on lower incomes
  - charges which are not based on usage levels will do little to encourage efficient use of water
  - cost of installing water meters
  - administration costs of different forms of water charges

- comparison with other parts of the UK
  - *in NI the average rates bill (which includes a charge for water) is approximately £500 per year, whereas in Scotland they pay approximately £1300 for their water and property tax*
  - *although we do pay less in local taxes than the rest of the UK it should be remembered that incomes in NI are about 20% lower than the UK average and the cost of living in NI is higher than the UK average, e.g. fuel costs in NI are 11% higher and food costs are 20% higher than the UK average*
- impact of water charges on the disposable income of NI households and the knock on impact on aggregate demand and economic growth
- reference to the fact that introducing water charges would raise funds for the NI executive – which could be spent on other areas
- appropriate examples
- appropriate diagrams.

**Level 1 ([1]–[7])**

Candidate shows little understanding of the arguments for and against the introduction of water charges. There is no significant analysis or evaluation and quality of written communication is limited.

**Level 2 ([8]–[13])**

Candidate shows some understanding of the arguments for and against the introduction of water charges. There is some attempt at analysis and evaluation and quality of written communication is satisfactory.

**Level 3 ([14]–[19])**

Candidate shows in-depth understanding of the arguments for and against the introduction of water charges. There is significant analysis 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 arguments for the introduction of water charges. There is a thorough analysis, evaluation and judgement of the arguments and quality of written communication is excellent. [25]

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**4 MP calls for end to price discrimination**

- (a) Price discrimination occurs when a firm sells the same product in two or more markets at different prices. In other words consumers pay different prices for the same goods.

To price discriminate the following conditions need to exist:

- the firm must have some market power, i.e. not be a price taker
- the firm must be able to separate the markets
- buyers in different markets must have a different elasticity of demand
- firms must be able to prevent reselling by those buyers who paid the low price to those who would pay the higher price.

If these conditions exist, firms can charge those with less elastic demand higher prices and therefore gain higher levels of revenue. If the increased revenue from price discrimination is greater than the addition to cost then the firm will gain higher levels of profit.

Areas for analysis and discussion include:

- definition of price discrimination
- conditions necessary for price discrimination
- impact on revenue and profits
- distinction between 1st, 2nd and 3rd degree price discrimination
- appropriate diagram
- appropriate examples.

### **Level 1 ([1]–[5])**

Candidate shows little understanding of why firms price discriminate. Quality of written communication is limited.

### **Level 2 ([6]–[10])**

Candidate shows some understanding of why firms price discriminate, but this may be incomplete or contain errors. The answer may be supported by a diagram. Quality of written communication is satisfactory.

### **Level 3 ([11]–[15])**

Candidate shows detailed understanding of why firms price discriminate. The answer may be supported by an accurately drawn diagram. Quality of written communication is of a high standard. [15]

- (b)** Some people argue that price discrimination should be outlawed since it will lead to some consumers paying a higher price for the product than would be the case if the firm did not discriminate. This means the welfare of consumers (as measured by their consumer surplus) would be reduced. The monopolist on the other hand is able to abuse his market power and gain higher revenue and greater profits and is able to increase his producer surplus at the expense of those with the more inelastic demand.

They also argue that price discrimination is often used by firms to drive competitors out of business.

However, price discrimination can benefit society since it leads to some consumers, (those with relatively elastic demand) paying a lower price. In some cases individuals, who would have previously been unable to consume the good, will be priced into the market and would therefore gain welfare, e.g. the high price paid by business users for computer software may allow the IT company to offer the same software to educational users at much lower prices.

It could also be argued that, since the monopoly can sell more goods by discriminating, it will have more scope to exploit economies of scale. These economies of scale could result in lower costs for the firm and therefore lower prices for all customers.

It could be argued that the monopolist could use some of the extra supernormal profit, earned by discriminating, to fund research and development and therefore lead to greater dynamic efficiency.

Areas for analysis and discussion include:

- impact on consumer and producer surplus
- impact on profits
- impact on efficiency
- reference to price discrimination being used as a barrier to entry
- reference to economies of scale
- reference to cross subsidisation
- reference to the efficiency or otherwise of government regulation
- difficulty in enforcing a complete ban on price discrimination
- appropriate diagrams
- appropriate examples.

**Level 1 ([1]–[7])**

Candidate shows little understanding of the arguments for and against a total ban on price discrimination. There is no significant analysis or evaluation and quality of written communication is limited.

**Level 2 ([8]–[13])**

Candidate shows some understanding of the arguments for and against a total ban on price discrimination. There is some attempt at analysis and evaluation and quality of written communication is satisfactory.

**Level 3 ([14]–[19])**

Candidate shows in-depth understanding of the arguments for and against a total ban on price discrimination. There is significant analysis 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 arguments for and against a total ban on price discrimination. There is a thorough analysis, evaluation and judgement of the arguments and quality of written communication is excellent. [25]

**Total**

40

**80**



