

# A-LEVEL

# **Economics**

ECON3 Business Economics and the Distribution of Income Mark scheme

2140 June 2016

Version 1.0: Final Mark Scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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

June 2016 ECON3

#### **Advanced Level Economics Unit 3**

## **General Instructions**

Marks awarded to students should be in accordance with the following mark scheme and examiners should be prepared to use the full range of marks available. The mark scheme for most questions is flexible, permitting the candidate to score full marks in a variety of ways. Where the candidate's response to a question is such that the mark scheme permits full marks to be awarded, full marks **MUST** be given. A perfect answer is not necessarily required for full marks. But conversely, if the candidate's answer does not deserve credit, then no marks should be given.

Occasionally, a candidate may respond to a question in a reasonable way, but the answer may not have been anticipated when the mark scheme was devised. In this situation, **OR WHENEVER YOU HAVE ANY DOUBT ABOUT THE INTERPRETATION OF THE MARK SCHEME**, you must in the first instance telephone your team leader to discuss how to proceed.

Two approaches have been used in the construction of the mark scheme.

(i) An issue based approach. The mark scheme for parts 01, 02, 04 and 05 of the data response questions and the first part of each essay question adopts this approach. The mark scheme lists the marks that can be awarded for particular issues (and associated development) that the candidate might include in the answer.

A levels approach. This approach is used for parts 03 and 06 of the data response questions and the second part of each essay question. The Levels Mark Scheme on the next page identifies five levels representing differences in the quality of work. A range of marks is allocated to each level. First decide the level into which an answer falls. The level chosen should be the one which best fits the answer provided by the candidate. It is not intended that the answer should satisfy every statement in the level description. Then think in terms of awarding the mid-point mark which has been identified for that level (eg 13 marks for Level 3). Move up or down from this notional mark by considering the extent to which the answer meets the level description overall. Strength in one skill can outweigh weakness in another. When using the Levels Mark Scheme the marker must identify where a particular skill is being demonstrated. The key to be used to identify the skill is given after the level descriptions. The question-specific mark scheme summarises the information which could be used to answer the question, but without attaching marks to particular issues.

# AQA ADVANCED LEVEL (A2) ECONOMICS LEVELS OF RESPONSE MARK SCHEME

# FOR USE WITH QUESTIONS 03, 06, 08, 10 AND 12 ONLY

A2 LEVELS OF RESPONSE	AO1 KNOWLEDGE and UNDERSTANDING of theories, concepts and terminology	AO2 APPLICATION of theories, concepts and terminology	AO3 ANALYSIS of economic problems and issues	AO4 EVALUATION of economic arguments and evidence, making supportive judgements
Level 5 22-25 marks (mid-point 24)  Good analysis and good evaluation	Good throughout the answer with few errors and weaknesses	Good application to issues  Where appropriate, good use of data to support answer	Relevant and precise with a clear and logical chain of reasoning Good awareness of the inter-relatedness of economic issues	Good with a clear final judgement
Level 4 17-21 marks (mid-point 19)  Good analysis but limited evaluation  OR	Good throughout the answer with few errors and weaknesses	Good application to issues  Where appropriate, good use of data to support answer	Relevant and precise with a clear and logical chain of reasoning Good awareness of the inter-relatedness of economic issues	Limited but showing some appreciation of alternative points of view
Reasonable analysis and reasonable evaluation	Good throughout much of the answer with few errors and weaknesses	Some good application to issues Where appropriate, some good use of data to support answer	Largely relevant and well organised with reasonable logic and coherence  Some awareness of the inter-relatedness of economic issues	Reasonable, showing an appreciation of alternative points of view
Level 3 10-16 marks (mid-point 13)  Reasonable answer, including some correct analysis but very limited evaluation	Satisfactory but some weaknesses shown	Reasonable application to issues Where appropriate, reasonable use of data to support answer	Reasonably clear but may not be fully developed and is perhaps confused in places with a few errors present  Quite well organised with some logical development	Superficial, perhaps with some attempt to consider both sides of the issue(s)
Level 2 4-9 marks (mid-point 7)  Weak with some understanding	Limited and some errors are made	Partial application to issues with some errors Where appropriate, limited use of data to support answer	Partial but confused at times, lacking focus and development Limited logic and coherence	A very basic and simplistic attempt is made which is unsupported by analysis
Level 1 0-3 marks (mid-point 2)  Very weak	Weak with a number of errors	Little, if any, application to issues Where appropriate, no use of data to support answer	Poor and lacking clarity and focus	No relevant evaluation

## THE KEY TO BE USED WHEN USING THE LEVELS MARK SCHEME

- **D** Where a particular economic term is correctly **DEFINED** in order to help the candidate to answer the question properly.
- I Where a relevant **ISSUE** is raised by the candidate.
- **K** Where the candidate demonstrates **KNOWLEDGE** of recent developments or features of the economy which help enhance the candidate's response to the question. This should also be used where the candidate quotes relevant examples.
- Ap Where the candidate demonstrates the ability to APPLY knowledge and CRITICAL UNDERSTANDING to problems and issues.
- An Where the candidate demonstrates the ability to **ANALYSE** the problem using appropriate economic ideas.
- **E** Where the candidate **EVALUATES** and makes judgements about the significance of various issues and arguments.

# **Synoptic Assessment**

All questions in this unit are synoptic. Therefore, students will need to demonstrate that they are able to think as an economist and to use effectively the economist's 'tool kit' of concepts, theories and techniques.

Students should demonstrate that they:

- understand the inter-relatedness of many economic issues, problems and institutions;
- understand how certain economic concepts, theories and techniques may be relevant to a range of different contexts;
- can apply concepts, theories and techniques in analysing economic issues and problems and in evaluating arguments and evidence.

## **QUALITY OF WRITTEN COMMUNICATION**

Quality of Written Communication (QWC) will be assessed in Questions 03, 06, 08, 10 and 12 only.

Students will be assessed according to their ability to:

- ensure that text is legible, and that spelling, grammar and punctuation are accurate, so that meaning is clear
- select and use a form and style of writing appropriate to purpose and complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

No specific marks are awarded for QWC.

However, examiners should take into account QWC when determining the mark to be awarded for an answer. This means an answer could be taken either up (for exceptional QWC) or down (for very poor QWC) by 1 mark (and no more).

## 1 THE GLOBAL CONTEXT

**Total for this Context: 40 marks** 

**01** Using Extract A, calculate, to **two** decimal places, the UK's coal consumption as a percentage of China's, **and** identify **one** other significant feature of the data shown.

(5 marks)

#### The calculation

For the correct answer (1.87%)	3 marks
The 'unit' (% or per cent) <b>must</b> be shown.	
For the correct answer without a unit shown	2 marks
Any other answer between 1.8 and 1.9 (inclusive) irrespective of decimal places, <b>with</b> unit shown.	2 marks
Any other answer between 1.8 and 1.9 (inclusive) irrespective of decimal places, <b>without</b> unit shown.	1 mark
For showing the correct method but arriving at a wrong number, ie  36 x 100 1925 = wrong number	1 mark

# Identifying one significant feature

For identifying a significant feature (1 mark) and providing relevant and accurate supporting data (1 mark) with 'unit' (million tonnes) stated (1 mark).	Up to 3 marks
For a 'trawl' through the numbers, or for simply providing an item of data seemingly chosen at random with no clear significance.	0 marks

## Significant features include:

- Russia has the lowest consumption of non-hydro 'renewables' at 0.1 mn tonnes
- The USA is the largest oil consumer of the group (831 mn tonnes)

Note: the question asks for 'significant feature', but a 'significant point of comparison' either international, within a country, or both is acceptable, e.g.

- Russia is the only country where gas consumption (372 mn tonnes) is greater than oil (153 mn tonnes)
- Britain's hydro consumption, at 1 mn tonnes, is very small compared to the others, the USA's, for example at 61 mn tonnes.

MAXIMUM FOR PART 01: 5 MARKS

**02** Explain what is meant by a "finite' resource" (**Extract B**, line 4) and analyse why it might be argued that environmental policies are 'bad for business' (**Extract B**, line 15).

(10 marks)

# **Explanation**

For a relevant explanation of a finite resource eg in terms of a resource that once consumed cannot be replaced / renewed, or is limited in supply (2 marks) and therefore will become more scarce over time (2 marks).

Note: the stress of the question is on the word "finite". If "resource" is defined, this can be awarded up to 2 marks; but "finite" must be defined for the full 4 marks.

Up to 4 marks

# Maximum of 4 marks for the explanation

#### **Analysis of reasons**

Award one mark for each step in a logical chain of reasoning.

# For Example

- Environmental policies might impose extra costs on businesses (1 mark) for example via taxes (1 mark) or through requirements for types of equipment (1 mark), such as catalytic converters being fitted to cars (1 mark). If these policies are unilateral, then international competitiveness might be damaged (1 mark). There may be bureaucratic costs (1 mark).
- Further elaboration of a relevant aspect, e.g the effects of environmental taxes

## Up to 8 marks for the analysis

For making appropriate use of diagrams, eg S & D analysis showing taxation, the effects of 'peak oil' (mentioned in the text) or another relevant example such as rising average costs

Up to 2 marks per diagram (1 mark for labelling, 1 mark for correct information shown) to a maximum of 3 marks

**MAXIMUM FOR PART 02: 10 MARKS** 

**03** 'In tackling environmental problems there is not really a straight choice between perfectly performing markets on the one hand, and wonderfully wise governments on the other.' (**Extract C**, lines 18-19).

Using the data and your knowledge of economics, assess the relative importance of market forces and government intervention in encouraging businesses to behave responsibly towards the environment.

(25 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Where there is no **explicit** reference to the data, award a maximum of **21 marks**.

Level 5	Good analysis <u>and g</u> ood evaluation	22 to 25 marks Mid-point 24
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 marks Mid-point 19
Level 3	Reasonable answer, including some correct analysis but very limited evaluation	10 to 16 marks Mid-point 13
Level 2	Weak with some understanding	4 to 9 marks Mid-point 7
Level 1	Very weak	0 to 3 marks Mid-point 2

Refer also to the issues and areas for discussion on the next page.

# Issues and areas for discussion include

Introduction	Definitions/descriptions of, eg  • Market forces	
	Government intervention/ regulation	
Developing the	Comments from own economic knowledge or based on the data, eg	
response to the question (application)	<ul> <li>Further comments on Extract A, (international comparisons of green/ non-green energy sources)</li> </ul>	
	Examples from <b>Extract B</b> of businesses behaving responsibly, e.g seeking new fuels for aircraft, developing electric cars.	
	Market forces clashing with government predictions , e.g. seeking new oil while wanting to limit climate change (Extract B)	
	Failures of regulation (Extract C)	
	Unsustainable business model (Extract C)	
Developing the response to the question (analysis)	Arguments for regulation / intervention eg	
	The need for coordinated international action  Arguments for market forces eg	
	<ul> <li>Government failure</li> <li>Efficiency</li> <li>Competition, enterprise, efficiency</li> <li>Signalling, incentive, rationing functions of price</li> </ul>	
Evaluation	Evaluation of policies in general, e.g. command and control vs. market- focused policies	
	Evaluation of some specific policies, e.g. prohibitions, regulations, vs. pollution permits, carbon off-setting, taxes, subsidies	
	Discussion of the quotation (perfectly performing markets vs. wonderfully wise governments)	
	Consideration of why environmental policies might be good for business and also why it is good for business to respect the environment	
	<ul> <li>Advantages and disadvantages of a mixed economy approach</li> <li>Market failure versus government failure</li> <li>Need for privatisation to be accompanied by effective regulation</li> <li>Discussion of the claim about privatised profits and nationalises costs</li> </ul>	
	Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.	

Also give credit for	<ul> <li>Relevant diagrams</li> <li>An overall judgement on the issues raised.</li> </ul>
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It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

# USE THE DETAILED LEVELS MARK SCHEME ON PAGES 4 AND 5 FOR FURTHER CLARIFICATION.

**MAXIMUM FOR PART 03: 25 MARKS** 

## 2 THE EUROPEAN UNION CONTEXT

# **Total for this Context: 40 marks**

**04** Using **Extract D**, **Graph (i)**, calculate the Spanish minimum wage as a percentage of that of the Netherlands, **and** identify **one** significant point of comparison between information in **Graph (i)** and information in **Graph (ii)**.

[5 marks]

#### The calculation

For the correct answer 50%	3 marks
The 'unit' (per cent or %) <b>must</b> be shown.	
For the correct answer without a unit shown.	2 marks
Any other answer between 49 and 51 (inclusive), with unit shown.	2 marks
Any other answer between 49 and 51(inclusive), without unit shown.	1 mark
For showing the correct method but arriving at an incorrect answer ie <u>750</u> = incorrect answer 1500	1 mark

# Identifying one significant point of comparison

For identifying a significant comparison (1 mark) and providing relevant and accurate supporting data (1 mark) with 'units' (euros and / or per cent) (1 mark)	Up to 3 marks
For a 'trawl' through the numbers, or for simply providing an item of data seemingly chosen at random with no clear significance.	0 marks

# Significant points of comparisons include:

- Luxembourg has the highest minimum wage in Graph (1) at approx 1800 euros, but in Graph (ii) it has in the second highest percentage earning less than 105% of the minimum wage, with 10%.
- France has a higher minimum wage than the UK (approx 1390 compared with 1260 euros, in Graph (i), but a higher proportion earning less than 105% of the minimum wage (9 compared with 4%) in Graph (ii).
- Slovenia is in the middle of the group in Graph (i), at approx 760 euros, but is has the highest figure in Graph (ii), with approx 19% earning 105% or less of the minimum wage.

# MAXIMUM FOR PART 04: 5 MARKS

**05** Explain the difference between 'equality' and 'equity' (**Extract E**, line 3), and analyse why, left to market forces, some workers will earn very low wages.

(10 marks)

# **Explanation**

For defining/describing equity, in terms of fairness (2 marks) and equality, in terms of distribution of income or wealth (2 marks);

Up to 4 marks

# **Analysis of reasons**

Award 1 mark for each step in a logical chain of reasoning.

# For example

- Wages can be considered the price of labour (1 mark); the demand for labour comes from employers (1 mark); the supply of labour comes from employees (1 mark). The basic reason for low pay in certain occupations is that demand is low (1 mark) and/ or supply is high (1 mark). Low skilled labour, for example, requiring no qualifications has a large potential supply (1 mark), and demand is weak, for various reasons, e.g. since this kind of labour can often be easily automated (1 mark)
- Other influences, e.g.
  - o marginal revenue product;
  - o price elasticity of demand for and supply of labour;
  - o imperfections in the labour market, immobility, discrimination,
  - o collective bargaining (or the lack of trade unionisation).

Up to 8 marks for the analysis

Make appropriate use of diagrams, eg S & D
for labour; MRP

Up to 2 marks per diagram (1 mark for labelling, 1 mark for correct information shown) to a maximum of 3 marks

**MAXIMUM FOR PART 05: 10 MARKS** 

**06** 'The living wage is based on the amount an individual needs to earn to cover the basic costs of living and lead a "decent life".' (Extract F, lines 6-7).

Using the data and your knowledge of economics, assess whether the UK government should legislate to make the national minimum wage a living wage, or whether there are better ways of improving the earning power of the low paid.

(25 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Where there is no **explicit** reference to the data, award a maximum of **21 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 5 marks Mid-point 24
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 marks Mid-point 19
Level3	Reasonable answer, including some correct analysis but very limited evaluation.	10 to 16 marks Mid-point 13
Level 2	Weak with some understanding	4 to 9 marks Mid–point 7
Level 1	Very weak	0 to 3 marks Mid–point 2

Refer also to the issues and areas for discussion on the next page.

# Issues and areas for discussion include

Introduction	Definitions of minimum wage, living wage, earning power
	Distinction between income and wealth
<b>.</b>	Comments from our conomic knowledge or board on the data or
Developing the response to the	Comments from own economic knowledge or based on the data, eg     Ell contact (Extract E)
question	<ul> <li>EU context (Extract E)</li> <li>Discussion of differences between NMW and living wage (Extract E)</li> </ul>
(application)	Levels and comparisons (Extract F)
Developing the	Who are the low [aid?
response to the	Possible effects of NMW on output and employment
question (analysis)	Benefits of a living wage, e.g. reduced labour turnover, increased productivity, reduced government subsidies for low wages
	Increased costs of living wage, effects on sectors/ general economy
	Other methods of raising wage levels, e.g. productivity enhancement, skills, education and training
	Benefits and welfare to work
	Impact of taxes
	Short and long run considerations
	Money costs of NMW
	Opportunity costs of government subsidies for the low paid
	External costs of inequality
	The economic disfunctionality of inequality
Evaluation	General arguments for and against government intervention in labour markets
	Market failure versus government failure
	Consideration of the issues from different points of view, e.g. employers, employees, taxpayers
	Consideration of the affordability of NMW
	Consideration of the affordability of the alternatives to NMW
	<ul> <li>The government's own position as a major employer (local and national government)</li> <li>Efficacy of NMW compared with other policies</li> </ul>
	Consideration of the definition of living wage (how to define 'decent' standard of life)
	What is the value of a NMW if it is not a 'living' wage?  A high wage accompany versus a law wage accompany.
	A high-wage economy versus a low-wage economy
	Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.

Also give credit for	<ul><li>Diagrams</li><li>An overall judgement on the issues raised.</li></ul>
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It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

# USE THE DETAILED LEVELS MARK SCHEME ON PAGES 4 AND 5 FOR FURTHER CLARIFICATION

**MAXIMUM FOR PART 06: 25 MARKS** 

# **SECTION B**

# Essay 1

# **Total for this Essay: 40 marks**

'In the middle of the twentieth century, the UK had more than 20 large car producing companies and a countless number of small, local manufacturers, many of which also produced motorbikes and pedal cycles. Now there is no single car producer that is purely 'British' and, globally, there are probably fewer than 20 significant car producers in the world.'

**07** Explain how economic theory suggests that perfect competition among many small firms leads to an efficient allocation of resources.

(15 marks)

For relevant definitions, eg perfect competition (2 marks), efficient resource allocation (2 marks)

Up to 2 marks per point defined or explained to a maximum of 4 marks

For explanation – award 1 mark for each link in a logical chain of reasoning to a maximum of 15 marks.

# **Examples include**

- Economic theory predicts that under the conditions perfect competition the market will move towards a long run equilibrium (1 mark) where firms are earning only normal profits (1 mark) and there is no incentive (1 mark) for existing firms to leave (1 mark) or new firms to enter (1 mark) the industry. At that point P = MC = MR = AC = AR (1 mark). If price equals marginal cost, the producer is compensated for putting the resources together to produce a good or service (1 mark). If price also represents the marginal benefit, then consumers believe a purchase compensates them for the hard-earned money they spend (1 mark). If marginal cost = marginal benefit neither consumers nor producers are benefitting at the expense of the other (1 mark) while consumers are receiving the goods and services they want (1 mark). This gives allocative efficiency (1 mark). If MC = AC, then AC must be at its lowest point and this gives productive efficiency (1 mark). So profit maximisation (MC = MR) (1 mark) by a large number of small firms has led to an efficient allocation of resource (1 mark).
- Because they do not act as price-takers, and AR is therefore not equal to MR firms in any imperfect form of competition cannot achieve all five elements of P = MC = MR = AC =AR at a single equilibrium point and in that sense is less efficient than perfect competition

For students who do not go directly to the LR equilibrium position, but start with the short run, distinguish between firm and industry, and proceed through the 'steps' towards achieving LR equilibrium:

Allow up to 2 marks for a mere 'list' of conditions of perfect competition. Individual
conditions can be credited (1 mark each) only if they are discussed within a logical
chain of reasoning that explains price-taking and competitive behaviour.

Use of diagrams to support explanations, eg Perfect competition, equilibrium, short/ long run	Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks.
Relevant real world examples and/or relevant reference to the UK and/or other economies.	1 mark per reference to a maximum of 2 marks

MAXIMUM FOR PART 07: 15 MARKS

**08** Evaluate whether growing market concentration and monopoly power, in an industry such as motor manufacturing, are necessarily undesirable.

(25 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks Mid–point 24
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 marks Mid-point 19
Level 3	Reasonable answer, including some correct analysis but very limited evaluation.	10 to 16 marks Mid–point 13
Level 2	Weak with some understanding	4 to 9 marks Mid-point 7
Level 1	Very weak	0 to 3 marks Mid–point 2

# Issues and areas for discussion include

Introduction	Definitions of, eg
Developing the response to the question  Application/ Analysis	Advantages of concentration/ monopoly     Economies of scale     International competitiveness     Patents, copyrights, etc     Public interest arguments, e.g. strategic industries, employment issues     Dynamic efficiency     Natural monopoly      Disadvantages
	<ul> <li>Deadweight losses</li> <li>Higher prices, lower output, under-used capacity</li> <li>Possibility of collusion</li> <li>Market failure</li> <li>Producer sovereignty</li> </ul>
Evaluation	<ul> <li>Critical discussion of the quotation</li> <li>Advantages versus disadvantages of monopoly/ concentration</li> <li>Possibility of price discrimination (positives and negatives)</li> <li>Need for government intervention and regulation</li> <li>Collusion distinguished from cooperation/ collaboration</li> <li>Static / dynamic efficiency</li> <li>Is perfect competition always 'perfect'?</li> <li>Does 'perfect' necessarily signal 'the best'?</li> <li>Global issues (large firms more resilient than small ones faced with international competition and corporatism)</li> <li>Advantages of monopoly in certain situations (e.g. NHS vs health markets)</li> <li>Application to particular industries, such as motor manufacturing</li> <li>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</li> </ul>

Also give credit for	<ul> <li>Diagrams</li> <li>An overall judgement on the issues raised</li> <li>Examples.</li> </ul>
	- Examples.

It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

# USE THE DETAILED LEVELS MARK SCHEME ON PAGES 4 AND 5 FOR FURTHER CLARIFICATION

**MAXIMUM FOR PART 8: 25 MARKS** 

## Essay 2

# Total for this Essay: 40 marks

'In the real world of business, two observations can consistently be made. Firstly, sooner or later, the law of diminishing returns will operate; and secondly, over time, profit maximising is always a key goal.'

**09** Explain the difference between diminishing returns to a factor in the short run, and returns to scale in the long run.

(15 marks)

For relevant definitions, eg fixed / variable factor (2 marks), short/ long run ( 2 marks) Returns to scale (2 marks)

Up to 2 marks per point defined or explained to a maximum of 4 marks

For explanation - Award 1 mark for each step in a logical chain of reasoning, up to 15 marks.

# **Examples include**

• The law of diminishing returns (LDR) shows both factor combination and factor substitution (1 mark). It is a short run law, meaning that a variable factor, such as labour (1 mark) is combined with other factors, at least one of which, such as a machine or factory building, (1 mark) is fixed in terms of size or scale (1 mark) and hence productive capacity (1 mark). In effect, an increasing use of a variable factor is used as a substitute for more of the fixed factor (1 mark), and since factors are not perfect substitutes, diminishing returns sets in (1 mark). LDR shows how output changes (1 mark) in proportion to factor inputs (1 mark) as the fixed factor approaches and passes its optimal capacity (1 mark). In the short run, we can confidently predict that LDR will set in at some point affecting marginal, average and total returns (1 mark).

Returns to scale (RTS) operate in the long run (1 mark), when all factors are variable in size or scale (1 mark). RTS show how output changes as the scale of the production unit increases (1 mark). RTS occur in the long run, and nobody can predict the future, so economies of scale are less predictable and less certain than short-run diminishing returns (1 mark). There is the possibility of long run decreasing returns to scale (1 mark)

- Allow maximum of 2 marks for a mere list of different types of scale economy (managerial, technical, etc). Individual types of economy of scale can only earn 1 mark if they are integral to the logical chain of discussion explaining long run changes in returns.
- Up to **3 marks** for describing increasing returns, constant returns, and decreasing returns to scale as a relevant part of the discussion
- While the law of diminishing returns is related to physical output, not the value of output, the law underlies the shape of average and marginal cost curves. Students can therefore discuss this question by reference to short run cost curves, which are the mirror image of physical product curves, with short run costs falling (efficiency increasing) as optimal capacity utilisation is approached, then rising (efficiency reducing). Economists typically draw a long run average cost curve (envelope curve) reflecting increasing returns to scale (falling LRAC), constant returns (horizontal LRAC) and decreasing returns (rising LRAC).

Use of diagrams to support the explanation, eg marginal and average physical product curves and / or cost curves	Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks.
Relevant real world examples and/or relevant reference to the UK and/or other economies.	1 mark per reference to a maximum of 2 marks

MAXIMUM FOR PART 09 15 MARKS

**10** Evaluate the view that, for all firms, whether small or large, in the long run, profit maximisation is always more important than any other business objective.

(25 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis and good evaluation	22 to 25 marks Mid-point 24
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	<b>17 to 21 marks</b> <i>Mid–point 19</i>
Level 3	Reasonable answer, including some correct analysis but very limited evaluation.	10 to 16 marks Mid–point 13
Level 2	Weak with some understanding	4 to 9 marks Mid–point 7
Level 1	Very weak	0 to 3 marks Mid-point 2

# Issues and areas for discussion include

Introduction	Basic definitions/descriptions of	
	<ul> <li>long run,</li> <li>profit maximisation</li> <li>business goals/ objectives</li> </ul>	
Developing the response to the question  Application/ Analysis	<ul> <li>The importance of the profit motive.</li> <li>Relevance of the size of firms</li> <li>The functions of the entrepreneur: ownership, control, decision making and risk taking in small firms and large firms</li> <li>Directors versus managers</li> <li>Decision-making in small firms and large firms</li> <li>The impact of a divorce between ownership and control</li> <li>Other possible objectives <ul> <li>Sales maximisation</li> <li>Revenue / turnover maximisation</li> <li>Maximisation of Market share</li> <li>Maximisation of company size (world domination)</li> <li>Industry-specific objectives e.g. newspaper circulation, TV viewing figures</li> <li>Managerial utility</li> <li>Social welfare maximisaton</li> <li>Satisficing</li> </ul> </li> </ul>	
Evaluation	<ul> <li>Critical discussion of the quotation</li> <li>Bonus culture</li> <li>Short run vs long run</li> <li>Large firms vs small firms</li> <li>Overall view of the various possible objectives</li> <li>Is any one objective sufficient, or do firms need a range of objectives?</li> <li>Importance of profits for investment</li> <li>Can any other objectives be achieved in the long run if profits are not achieved?</li> <li>Is profit maximising actually possible? Do firms have the information? Can they track MC, MR etc?</li> </ul> Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.	

Also give credit	•	Diagrams
for	•	An overall judgement on the issues raised
	•	Examples.

It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

# USE THE DETAILED LEVELS MARK SCHEME ON PAGES 4 AND 5 FOR FURTHER CLARIFICATION

**MAXIMUM FOR PART 10: 25 MARKS** 

## Essay 3

# **Total for this Essay: 40 marks**

'Most consumers know, more or less, when and why they are likely to want to replace a TV set or mobile phone. Nobody really knows in advance when or why they might need to go into hospital for a new knee-cap or hip joint.'

**11** Explain why imperfect information might lead to market failure in the case of merit goods and demerit goods.

(15 marks)

For relevant definitions eg imperfect information (2 marks), merit goods (2 marks), demerit goods (2 marks); market failure (2 marks)

Up to 2 marks per point defined or explained to a maximum of 4 marks

For explanation - Award 1 mark for each step in a logical chain of reasoning up to 15 marks.

# **Examples include**

- Poor information (1 mark) or asymmetric information (1 mark) are among a number of possible reasons for market failure (1 mark). When merit goods are consumed benefits do not stop with the prime consumer (1 mark), but spill over into the neighbourhood (1 mark) as positive externalities (1 mark). The consumer will not necessarily be aware of these benefits (1 mark) and so will not base spending decisions on this information (1 mark). Since individual consumers under-estimate the social benefits of their consumption, (1 mark) merit goods tend to be under-consumed (1 mark). It follows that they are also under-supplied (1 mark). Demerit goods are those where costs do not stay with the consumer (1 mark), but spill over into the neighbourhood (1 mark) as negative externalities (1 mark)
  - Imperfect information might affect consumers in the LONG RUN, causing them to demand too much or too little, compared with what they might have consumed if they were fully aware of the future consequences to themselves.
  - Market signals tell us about what is happening now, they are not adept at foreseeing the
    future; current market signals might, for instance, tell us to close down an industry, a
    decision that might be regretted some time later when conditions change (e.g. the policy
    of closing branch railway lines in favour of roadbuilding in the 1960s)

Use of diagrams to help support explanations, MSC/ MSB diagrams for merit and demerit goods.

Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks. Relevant real world examples and/or relevant reference to the UK and/or other economies.

1 mark per reference to a maximum of 2 marks

**MAXIMUM FOR PART 11: 15 MARKS** 

12 Discuss whether economic welfare would necessarily be increased if the provision of merit goods and public goods were always left to governments without ever involving markets.
(25 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks Mid-point 24
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	<b>17 to 21 marks</b> <i>Mid-point 19</i>
Level 3	Reasonable answer, including some correct analysis but very limited evaluation	10 to 16 marks Mid-point 13
Level 2	Weak with some understanding	4 to 9 marks Mid-point 7
Level 1	Very weak	0 to 3 marks Mid-point 2

# Issues and areas for discussion include

issues and are	as for discussion include	
Introduction	Definitions, examples:	
	o Economic welfare	
	<ul> <li>Merit goods, distinguished from public goods</li> </ul>	
	<ul> <li>Asymmetric information</li> </ul>	
	<ul> <li>Missing markets</li> </ul>	
Developing	Reasons for government provision, e.g.	
the response	Positive externalities	
to the	Negative externalities	
question	Unequal income distribution	
	Relative and absolute poverty; unequal life chances	
Application	Merit goods	
/Analysis	Social objectives : health, education	
	Economic objectives; infrastructure, efficiency	
	<ul> <li>Equity arguments ( 'social wages' from public services)</li> </ul>	
	Imperfect information	
	Missing markets	
	o Public goods	
	<ul> <li>Social or strategic importance (e.g. defence, law &amp; order)</li> </ul>	
	Non-rivalry	
	Non-diminishable	
	Non-excludable / pure/ non-pure	
	·	
	Arguments for involving markets, eg	
	<ul> <li>Efficiency</li> </ul>	
	<ul> <li>Competition</li> </ul>	
	<ul> <li>Trickle down arguments</li> </ul>	
	<ul> <li>Incentive arguments</li> </ul>	
	Critical discussion of the quotation	
Evaluation	Different approaches to	
	Merit goods and public goods	
	Different types of merit good	
	Merit and demerit goods	
	Is this a really case of either/ or?	
	Can the private sector function efficiently without a public sector (and vice	
	versa)	
	<ul> <li>Can the private sector be trusted to function properly without intervention?</li> </ul>	
	Possibility of public/ private partnerships	
	Money costs and opportunity costs	
	<ul> <li>Real world examples such as public and private transport, primary,</li> </ul>	
	secondary, tertiary education; tuition fees versus graduate taxes; public	
	universities, private universities	
	Overall view of advantages and disadvantages of private and state	
	provision	
	providion	

Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.

Also give credit for	<ul> <li>Diagrams</li> <li>An overall judgement on the issues raised</li> <li>Examples.</li> </ul>
	•

It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

USE THE DETAILED LEVELS MARK SCHEME ON PAGES 4 AND 5 FOR FURTHER CLARIFICATION

**MAXIMUM FOR PART 12: 25 MARKS**