

General Certificate of Education

Economics 6141

ECN5 Business Economics and the Distribution of Income

Mark Scheme

2006 examination - June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' 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.

Advanced Level Economics

June 2006

ECN5

Mark Scheme

General Instructions

Marks awarded to candidates 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 (a) and (b) of the data response question and part (a) of the essay questions adopts this approach. The questions do not generally require that the candidate demonstrates evaluative skills although some explanation and analysis may be expected. The mark scheme lists the marks that can be awarded for particular issues (and associated development) that the candidate might include in the answer. Marks awarded for development should take into account the Quality of Written Communication used by candidates as indicated on page 4 of this mark scheme.
- (ii) **A 'levels' approach.** This approach is used for parts (c) and (d) of the data response question and part (b) of the essay questions. The mark scheme summarises the information required to answer the question, but without attaching marks to particular issues. Marks should be awarded according to whether the answer displays the skills indicated by the five Mark Band Descriptors or "Levels of Skill" included in the mark scheme. The Mark Band Descriptors are set out on page 3. When using a 'levels' mark scheme the marker **must** identify where a particular skill is being demonstrated. The **key** to be used to identify the skill is shown on page 4. 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.

APPLYING THE ‘LEVELS’ MARK SCHEME**Levels of Response Mark Band Descriptors****Level 1**

Few, if any, relevant issues are recognised. Economic concepts and principles are not adequately understood or applied to the question and its context. No satisfactory analysis or evaluation. Little, if any, appreciation of the inter-relatedness of economic issues, problems and institutions. A poorly organised response which generally fails to answer the question. Descriptions and explanations lack clarity. Spelling, punctuation and grammar may be poor. There is little use of specialist vocabulary.

0 to 6 marks (*Mid-Point: 3 marks*)

Level 2

A few issues are recognised but there is only limited evidence of the candidate’s ability to apply relevant economic concepts. An attempt is made to answer the question but there is little satisfactory analysis or evaluation. Some very limited appreciation of the inter-relatedness of economic issues, problems and institutions. A poorly organised answer which does not have a clear structure. Descriptions and explanations are sometimes hard to follow. The candidate demonstrates some ability to spell commonly used words and to follow the standard conventions of punctuation and grammar. Some use of specialist vocabulary is made but this is not always applied appropriately.

7 to 12 marks (*Mid-Point: 10 marks*)

Level 3

A few issues are recognised. The candidate has attempted to apply relevant economic concepts and ideas to the question and its context. A reasonable understanding of some concepts and theories is demonstrated. However, the evaluation of the issues, arguments and evidence is limited or superficial. Some understanding of the inter-relatedness of economic issues, problems and institutions. There is some logic and coherence in the organisation of the answer. The candidate is generally able to spell commonly used words and usually follows the standard conventions of punctuation and grammar. Some descriptions and explanations are easy to understand but the answer may not be expressed clearly throughout. Some use of specialist vocabulary which is applied appropriately.

13 to 20 marks (*Mid-Point: 17 marks*)

Level 4

Several relevant issues are identified. Good understanding of some economic concepts and principles is demonstrated. The candidate is able to apply these concepts and principles to the context to help answer the question. There is some appreciation of alternative points of view. Satisfactory use is made of evidence and/or theoretical analysis to evaluate the issues and arguments identified. Good understanding of the inter-relatedness of economic issues, problems and institutions is demonstrated. Shows the ability to think as an economist making effective use of the economist’s ‘tool kit’ of concepts, theories and techniques. Spelling is generally accurate and the standard conventions of punctuation and grammar are usually followed. The answer is well organised. Descriptions and explanations are usually clearly expressed. A wide range of specialist vocabulary is used with facility.

21 to 26 marks (*Mid-Point: 24 marks*)

Level 5

Several relevant issues are identified. Good understanding of economic concepts and principles is demonstrated throughout. The candidate is able to apply these concepts and principles to the context to help answer the question. There is an appreciation of alternative points of view. Good use is made of evidence and/or theoretical analysis to evaluate the issues and arguments identified. The candidate demonstrates the ability to synthesise the arguments presented and come to a reasonable conclusion albeit tentative. A clear understanding of the inter-relatedness of economic issues, problems and institutions is demonstrated. Shows the ability to think as an economist making very effective use of the economist’s ‘tool kit’ of concepts, theories and techniques. Spelling is accurate and the standard conventions of punctuation and grammar are followed. The answer is well organised. Descriptions and explanations are expressed with clarity throughout. Extensive use of specialist vocabulary which is applied adeptly and with precision.

27 to 30 marks (*Mid-Point: 29 marks*)

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.
- A** 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.

QUALITY OF WRITTEN COMMUNICATION

The Mark Band Descriptors, which are used for assessing Question 1 (d) and part (b) of the essay questions, incorporate statements which relate to the Quality of Written Communication used by the candidates.

However, it is also important to assess Quality of Written Communication **whenever** candidates produce answers using continuous prose. When applying an issue based mark scheme, examiners must take into account the following when deciding how many marks to award for development:

- (i) use of an appropriate form and style of writing to organise relevant information clearly and coherently;
- (ii) use of specialist vocabulary, where appropriate;
- (iii) legibility of handwriting;
- (iv) accuracy of spelling, punctuation and grammar.

Synoptic Assessment

All questions in this unit are synoptic. Therefore, candidates 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.

They 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.

SECTION A**1****Total for this question: 50 marks**

- 1 (a) Using **Extract A**, briefly compare the real income growth of the poorest and richest households for the periods 1979-1989 and 1997-2003. *(4 marks)*

Candidates may compare the poorest and richest income groups (quintiles) over the period of the data, or the bottom two (representing the poorest) and the top two (representing the richest). Whichever approach is used, to earn all four marks, reference must be made to both the periods specified in the question, 1979-89 and 1997-2003.

Award one mark for each valid point made and one mark for the supporting reference to the data. Points might include:

- the percentage income increase of the richest groups was greatest from 1979 to 1989
- the percentage income increase of the poorest groups was greatest in the later period
- the absolute increase in the income of the top quintile was greater than that of the bottom quintiles in both periods (because of the top quintile group's much higher initial level of income).

A maximum of **1 mark** may be awarded if the candidate simply trawls through the data, with no attempt at comparison, or if only one time period is referred to.

A maximum of **2 marks** may be awarded if no use is made of statistics.

A maximum of **3 marks** may be awarded where there is evidence of an overview having been taken, even though parts of the answer give an impression of a trawl through the data.

MAXIMUM FOR PART (a) 4 MARKS

1 (b) Explain why changes in unemployment and labour inactivity rates caused the growth of income inequality in the UK to slow in the 1990s. (6 marks)

Note: the data states that the growth of income inequality slowed, rather than income inequalities were reduced. This is because high incomes were (are) rising by larger absolute amounts than low incomes. Candidates can earn full marks without recognising this fact, but the mark scheme allows a mark to be earned for the recognition, and a further mark for explanation or evidence.

For candidates who:

define unemployment: **1 mark**

define labour inactivity: **1 mark**

explain the meaning of income inequality: **1 mark**

note that **both** unemployment **and** labour inactivity rates fell in the 1990s: **1 mark**

Maximum of 2 marks for the above points.

For candidates who:

explain how falling unemployment caused the rate of growth of income inequality to slow: **up to 3 marks**

explain how falling labour inactivity rates caused the rate of growth of income inequality to slow: **up to 3 marks**

MAXIMUM FOR PART (b) 6 MARKS

1 (c) ‘High marginal income tax rates affect people’s work effort, and this can reduce the total amount of tax people pay’ (**Extract C**, lines 5 and 6). Analyse how an increase in income tax rates can affect total tax revenue. (10 marks)

Issues and areas for discussion and explanation include:

- Explanation of high income tax rates affect marginal and average tax rates;
- Explanation of the meaning of labour market incentives;
- How higher income tax rates affect labour market incentives and disincentives;
- How this affects the amount of labour time workers are prepared to supply;
- How this affects total tax revenue;
- Comparing the effect of upward-sloping and backward-bending supply curves of labour;
- Laffer curve analysis;
- Discussion of different labour markets.
- Tax avoidance/evasion;
- ‘Brain drain’ and effect on international mobility of labour,
- Relevant macroeconomic analysis e.g. the effect on aggregate demand; negative multiplier effects; effect on unemployment.

LEVEL 1

At the bottom of the range, no understanding of the effect of income tax rates on the economy. At the top of the range, some understanding but no relevant application to how they affect total tax paid.

1 to 3 marks

LEVEL 2

At the bottom of the range, some relevant application of how high tax rates may affect total tax paid, but the analysis lacks rigor. At the top of the range, a more rigorous but incomplete analysis, for example, focusing solely on macroeconomic explanation.

4 to 7 marks

LEVEL 3

At the bottom of the range, good wide-ranging analysis, but at least one mistake or lack of precise analysis. At the top of the range, accurate analysis and focus on the question which involves explicit and accurate explanation of the effect of **marginal** tax rates on work effort.

8 to 10 marks

Candidates who introduce accurate analysis of the Laffer curve are likely to reach Level 3. However, such analysis is not required as the Laffer curve is not a specification concept. Likewise, relevant analysis of the effect of the slope of the supply curve of labour is likely to reach Level 3, though the specification does not require candidates to be able to use theory to explain the shape (of upward-sloping and backward-bending supply curves of labour).

MAXIMUM FOR PART (c) 10 MARKS

1 (d) Using the data and your economic knowledge, evaluate the view that the benefits resulting from a more equal distribution of income exceed the costs. (30 marks)
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Explanation/analysis is needed to reach **Level 3**, and some evaluation building on the analysis is required to score **19 marks or higher**.

An answer which is restricted to a list of benefits and costs, without analysis or evaluation should be restricted to **Level 2**.

To reach **Level 3**, an answer must identify one benefit and one cost and provide very basic evaluation.

To reach **Level 4**, more analysis and evaluation should be provided, possibly considering two or more benefits and costs.

A **Level 5** answer will provide good analysis and convincing evaluation.

Benefits resulting from a more equal distribution of income include greater fairness and/or social cohesion, and possibly better health across the population. Costs include disincentives for the well paid to work harder and for the poor to choose jobs rather than unemployment (if the greater income equality results from progressive taxation and transfers). Credit relevant reference to evidence and examples drawn from the data or from the candidate's economic knowledge.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- Equity and social fairness arguments;
- Advantages and disadvantages of a more equal distribution for particular income groups;
- Advantages and disadvantages of a more equal distribution for society as a whole;
- Conflicts of a more equal distribution with other policy objectives, eg economic growth;
- Market failure arguments;
- Government failure arguments;
- Impact of the law of unintended consequences;
- Macroeconomic effect on aggregate demand, due to different MPCs of different income groups.

Also give credit for:

- relevant use of data and the candidate's knowledge;
- relevant use of evidence and examples;
- overall assessment

A maximum of 24 marks if no use is made of the data

USE THE LEVELS MARK SCHEME ON PAGES 3 & 4

MAXIMUM FOR PART (d) 30 MARKS

TOTAL FOR QUESTION 1: 50 MARKS

SECTION B**Each question carries 50 marks**

2 (a) With the use of examples, explain the various ways in which a business may grow in size.
(20 marks)

Ways in which a business may grow in size include: internal growth, external growth via takeover or merger, vertical growth, horizontal growth, lateral and conglomerate growth.

For candidates who:

distinguish between internal and external growth:	up to 3 marks
explain how internal growth takes place, eg through:	
exploiting the benefits of economies of scale	up to 2 marks
ploughing back profit:	up to 2 marks
expanding an existing market i.e. horizontal internal growth:	up to 2 marks
expanding into new markets i.e. lateral internal growth:	up to 2 marks
vertical internal growth:	up to 2 marks
any other relevant way:	up to 2 marks

For each of these points, **1 mark** for a very basic statement, **1 further mark** for expansion

explain how external growth takes place, eg through:	
acquiring the benefits of economies of scale	up to 2 marks
merger:	up to 2 marks
takeover:	up to 2 marks
vertical, horizontal or lateral external growth:	up to 2 marks each
any other relevant way:	up to 2 marks

For each of these points, **1 mark** for a very basic statement, **1 further mark** for expansion

use examples: **1 mark per example, up to a maximum of 4 marks**

Use diagrams to support their explanations e.g. LRAC diagram. For each diagram, **1 mark** for correct labelling of axes, **1 mark** for correct labelling of information provided eg LRAC, **1 mark** for accurate drawing and labelling of coordinates, **1 mark** for correct representation of information eg economies of scale occurring as a firm moves down its LRAC curve.

up to 4 marks per diagram to a maximum of 6 marks

Some candidates may write about *why* a business may choose to grow in size, eg to maximise profit. Award a maximum of 2 marks for one such argument, and a maximum of 4 marks in total for such an approach.

Maximum of 12 marks for an answer restricted to either internal or external growth

MAXIMUM FOR PART (a) 20 MARKS

2 (b) Evaluate the view that the economic advantages resulting from the growth of firms always exceed the disadvantages. (30 marks)
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Explanation/analysis is needed to reach **Level 3**, and some evaluation building on the analysis is required to score **19 marks or higher**.

An answer which only considers advantages *or* disadvantages should be restricted to **Level 2**.

To reach **Level 3**, an answer must identify at least one advantage and one disadvantage, and provide explanation and analysis.

To reach **Level 4**, the answer must be broader (covering more advantages and/or disadvantages) and deeper, providing more analysis and some reasonable evaluation.

A **Level 5** answer will provide convincing evaluation.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- Efficiency gain advantages;
- Economy of scale advantages;
- Monopoly and/or market power advantages;
- Inefficiency disadvantages;
- Diseconomy of scale disadvantages;
- Monopoly abuse and exploitation disadvantages;
- Awareness that advantages/disadvantages for a firm may not be the same as advantages/disadvantages for consumers and/or the public interest
- Application of static arguments;
- Application of dynamic arguments;

Also give credit for:

- Relevant use of candidate's knowledge;
- Relevant use of evidence and examples;
- Relevant use of diagrams
- Overall assessment

USE THE LEVELS MARK SCHEME ON PAGES 3 & 4

MAXIMUM FOR PART (b) 30 MARKS

TOTAL FOR QUESTION 2: 50 MARKS

3 (a) Explain the functions of profit in an economy.	<i>(20 marks)</i>
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Functions include: signalling information; providing incentives; conveying information; improving resource allocation; rewarding risk-taking; a source of investment finance; in the case of normal profit, keeping incumbent firms in the market; in the case of supernormal (abnormal, above-normal) profit, attracting new firms into the market.

For candidates who:

define profit: **up to 2 marks**

define normal profit: **up to 2 marks**

define supernormal (abnormal, above-normal or economic) profit: **up to 2 marks**

identify a function profit performs: **1 mark**

develop the explanation of a particular function: **up to a further 6 marks**

give an example or examples of the function: **1 mark**

Use diagrams to support their explanations e.g. monopoly diagram to distinguish between normal and supernormal profit. For each diagram, 1 mark for correct labelling of axes, 1 mark for correct labelling of information provided eg cost and revenue curves, 1 mark for accurate drawing and labelling of coordinates, 1 mark for correct representation of information eg supernormal profit.

up to 4 marks per diagram to a maximum of 6 marks

Maximum of 6 marks for definitions

MAXIMUM FOR PART (a) 20 MARKS

3 (b) The Office of Water Regulation (OFWAT) regulates the prices charged by companies in the water industry. Do you think that prices charged by all firms in an economy should be regulated by government agencies? Justify your answer. *(30 marks)*

Explanation/analysis is needed to reach **Level 3**, and some evaluation building on the analysis is required to score **19 marks or higher**.

To reach **Level 3**, an answer must show some understanding of the possible reasons for regulation **or** the possible effects of regulation.

To reach **Level 4**, the answer will address reasons or effects more fully, and consider the implications of the word **‘all’** in the question.

A **Level 5** answer might provide a convincing evaluation of both the reasons for, and the effect of regulating prices.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- The case for: preventing the abuse of monopoly power, particularly in natural monopolies;
- The case for: distributional arguments;
- The case against: regulatory capture arguments;
- The case against: information problem arguments;
- The case against: other strategies are preferable, eg removing entry barriers and promoting competition;
- Market failure arguments;
- Government failure arguments;
- Possible impact of the law of unintended consequences.

Also give credit for:

- Relevant use of candidate’s knowledge;
- Relevant use of evidence and examples;
- Relevant use of diagrams
- Overall assessment

USE THE LEVELS MARK SCHEME ON PAGES 3 & 4

MAXIMUM FOR PART (b) 30 MARKS

TOTAL FOR QUESTION 3: 50 MARKS

4 (a) Explain the various causes of environmental market failure.

(20 marks)

Causes of environmental market failure include: (i) failures resulting in resource depletion; (ii) failures resulting in resource degradation; (iii) missing markets in public goods (and public bads); (iv) over-production of goods producing negative externalities; (v) under-production of positive externalities; (vi) merit good aspects of the environment; (vii) demerit good aspects of the environment.

Examples include:

- (i) failure to recycle and depletion of finite environmental resources;
- (ii) pollution destroying environmental quality;
- (iii) clean air as a public good or polluted air as a public bad;
- (iv) overproduction of fossil fuels because they are too cheap;
- (v) under-planting of trees;
- (vi) markets failing to provide environmental amenities such as public parks;
- (vii) markets over-providing ugly housing estates.

For candidates who:

define market failure:

up to 2 marks

identify a cause of environmental market failure (eg state that negative externalities harm the environment):

up to 2 marks

explain the identified cause of environmental market failure:

up to 6 further marks

state a relevant example:

1 mark

develop the example:

1 further mark

Use diagrams to support their explanations e.g. marginal private, external and social cost and benefit diagram. For each diagram, **1 mark** for correct labelling of axes, **1 mark** for correct labelling of information provided eg the cost and benefit curves, **1 mark** for accurate drawing and labelling of coordinates, **1 mark** for correct representation of information eg welfare loss, or resource misallocation.

up to 4 marks per diagram to a maximum of 6 marks

Do not award marks for more than two examples per cause.

Do not award marks for a supposedly additional cause, insufficiently different from an earlier cause identified.

Maximum of 10 marks per cause.

MAXIMUM FOR PART (a) 20 MARKS

4 (b) ‘Intervention by the state to correct an environmental market failure inevitably leads to government failure.’ Evaluate this view. (30 marks)

Explanation/analysis is needed to reach **Level 3**, and some evaluation building on the analysis is required to score **19 marks or higher**.

An answer which shows no understanding of government failure should be restricted to **Level 1**.

An answer which uncritically agrees (or disagrees) with the view expressed in the sentence should be restricted to **Level 2**.

To reach **Level 3**, an answer may take issue with the view, but provide little analysis.

To reach **Level 4**, the answer must provide relevant analysis, though there may be an occasional mistake or omission, together with reasonable evaluation.

A **Level 5** answer will contain accurate and focused analysis and convincing evaluation.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- The meaning of market failure, and environmental market failure
- The case for reducing or correcting market failures;
- How governments or the state might intervene to reduce or correct market failures;
- The possibility of non-governmental organisations (NGOs) intervening instead;
- Methods of government intervention: taxation, regulation, creating markets in pollution permits etc.;
- A ‘carrot’ approach versus a ‘stick’ approach;
- Working with the market versus working against the market;
- The meaning of government failure, and environmental government failure;
- Discussing whether government intervention creates adverse or unintended consequences;
- Discussion of whether any government failures are more significant than the market failures the state was trying to correct

Also give credit for:

- Relevant use of candidate’s knowledge;
- Relevant use of evidence and examples;
- Relevant use of diagrams
- Overall assessment

USE THE LEVELS MARK SCHEME ON PAGES 3 & 4

MAXIMUM FOR PART (b) 30 MARKS

TOTAL FOR QUESTION 4: 50 MARKS