

GCE 2005

January Series



Mark Scheme

Economics

ECN5

Business Economics and the Distribution of Income

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.

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Advanced Level Economics**January 2005****ECN 5****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 5 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 4. 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 5. 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: 16 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 how taxes and benefits affected the income of the different quintile groups of households in 2001-02. <i>(4 marks)</i> |
|--|

For candidates who:

state that, for low income households, total benefits received are greater than total tax paid: **1 mark**
and back the point up with a relevant statistic or statistics: **1 mark**

state that, for higher income households, total benefits are less than total tax paid: **1 mark**
and back the point up with a relevant statistic or statistics: **1 mark**

make any relevant point about changes in total taxation, indirect taxation, direct taxation; changes in total benefits, benefits in kind and cash benefits: **1 mark**
and back the point up with a relevant statistic or statistics: **1 mark**

Maximum of 1 mark if the candidate trawls through the data, displaying no comparison

Maximum of 2 marks if no use is made of statistics

Maximum of 3 marks if the candidate does not make the comparison that benefits exceed taxes for low income households, but taxes exceed benefits for higher income households

Candidates do not have to use information from all the quintile groups to earn full marks, but they must compare at least one low and at least one high quintile group and make some relevant use of statistics

MAXIMUM FOR PART (a) 4 MARKS

- 1 (b) **Extract B** shows that as household income increases in the UK, the percentage of income paid in tax increases for some taxes, but falls for others. Using **two** examples of taxes shown in **Extract B**, explain why this is so. *(6 marks)*

In Extract B, income tax is progressive, employees' NIC is partly progressive, but all the other taxes, including council tax, are regressive. To answer the question fully, and thus to earn full marks, candidates must select one example of a progressive tax and one of a regressive tax, and explain why the chosen taxes are respectively progressive and regressive. It is not necessary to use the terms progressive and regressive explicitly, though many candidates will use these terms. Do not award the available marks for inaccurate definitions of progressive and regressive taxation, e.g. defining a progressive tax as one for which total tax paid increases with income.

For candidates who:

describe the extent to which the tax paid in income tax or employees' NIC increases as income rises:

1 mark

state that the tax is therefore progressive:

1 mark

explain a particular feature of the tax which contributes to this result e.g. different marginal tax rates; the band of untaxed income:

up to 2 marks per explanation

describe the extent to which the tax paid in one of the other taxes decreases as income rises:

1 mark

state that the tax is therefore regressive:

1 mark

explain a particular feature of the tax which contributes to this result e.g. richer households having given up smoking, the relatively low upper limit on the highest council tax band:

up to 2 marks per explanation

Maximum of 2 marks for an answer in which there is no explanation

Maximum of 3 marks if only one tax is described and explained

Maximum of 4 marks for describing and explaining a tax for which the percentage of income paid in tax increases as income increases

Maximum of 4 marks for describing and explaining a tax for which the percentage of income paid in tax falls as income increases

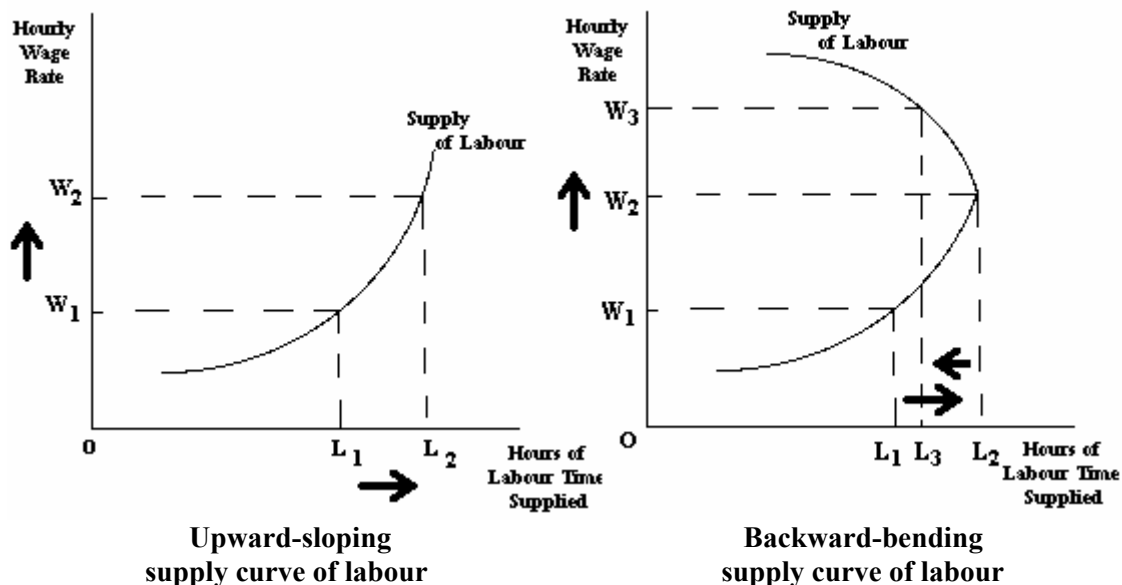
MAXIMUM FOR PART (b) 6 MARKS

1 (c) With the help of the data, use diagrams to analyse how changes in income tax may affect incentives in UK labour markets. (10 marks)

Issues and areas for discussion and explanation include:

- How income tax affects disposable income;
- The effect of higher marginal rates of income tax as income increases;
- Analysis of the effect of the shape of the supply curve of labour;
- Comparing the effect of upward-sloping and backward-bending supply curves of labour;
- Explanation of the meaning of incentives;
- Analysis of the offsetting effects of fringe benefits, tax avoidance etc.;
- Discussion of different labour markets;
- Use of the data on income tax in Extract B and on the nature of the supply of labour in Extract C.
- Changes in marginal tax rates versus changes in personal tax allowances

The question requires candidates to use the data and to use diagrams. In a very good answer, there will be at least two diagrams (probably supply curve of labour diagrams such as one or both of those below), related to the information in Extract C. In the diagrams, a cut in marginal income tax rates increases the hourly wage rate from W_1 to W_2 or from W_2 to W_3 . Full marks can be awarded for an answer, which, with the use of diagrams, analyses the effect of changes in marginal tax rates, with some relevant and accurate reference to Extract C. The effect of changes in personal tax allowances on incentives may also be discussed, though this is less likely.



LEVEL 1

At the bottom of the range, no accurate analysis or use of the data and no relevant diagrams. At the top of the range, an answer which attempts relevant analysis **or** use of the data and at least one relevant diagram, but both analysis or data use and diagrams contain significant inaccuracies. **1 to 3 marks**

LEVEL 2

At the bottom of the range, better analysis **or** at least one relevant and accurate diagram, but not both together and little use of the data. At the top of the range, incomplete but competent analysis and use of the data **and** at least one relevant and accurate diagram. **4 to 7 marks**

LEVEL 3

At the bottom of the range, good analysis and use of the data, but let down by incomplete diagrams or by the use of only one diagram. At the top of the range, good analysis and use of data, linked to two good diagrams. **8 to 10 marks**

MAXIMUM FOR PART (c) 10 MARKS

- 1 (d) Evaluate the case for **and** against the government changing the structure of the UK tax and benefit systems in order to make the distributions of income and wealth more equal. (30 marks)

The data provides two main prompts in relation to the possible effects of tax changes on the UK tax and benefit systems. Extract B indicates that certain taxes are progressive but that others are regressive. Extract C suggests that whether or not an increase in marginal tax rates has a disincentive effect in the labour market depends on the shape of a worker's supply curve of labour. However, the data makes no direct mention of the possible effects of redistributive policies via changes in welfare benefits (though there are some relevant numbers in Extract A). Explanation/analysis of the effect of changes to *either* tax *or* benefits is needed to reach Level 3, and some analysis/evaluation of both is required to score 21 marks or higher (Levels 4 and 5). A good Level 5 answer is likely to identify and explain at least two 'for' arguments, and at least one 'against' argument (or vice versa), explain or analyse each argument identified, and then evaluate whether on balance the case for is stronger than the case against.

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 extent to which the distribution of income is unequal;
- Different possible types of tax change e.g. marginal tax rates versus tax allowances;
- Different possible types of benefit change e.g. means tested versus universal benefits;
- Appreciation that for redistribution to occur, tax changes alone are not enough, though tax changes can alter the distribution of income when there are no changes in benefits;
- Incentive and disincentive effects of tax changes;
- Incentive and disincentive effects of benefit changes;
- Discussion of whether a more equal income distribution is desirable;
- Conflicts with other policy objectives e.g. economic growth;
- Government failure arguments.

Also give credit for:

- Relevant use of data and/or candidate's knowledge;
- Relevant use of evidence;
- Overall assessment.

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (c) 30 MARKS

SECTION B**Each question carries 50 marks****2**

2 “When markets are contestable and efficient, there is no need for competition policy.”

(a) Explain why contestable markets generally function more efficiently than non-contestable markets.
(20 marks)**For candidates who:**

define a contestable market in terms of:

a lack of or low barriers to entry:

2 marks

a lack of or low sunk costs:

2 marks

develop either of the above definitions, e.g. in the context of a particular market structure:

up to a further 4 marks per development

define a relevant efficiency concept (e.g. productive, allocative, dynamic):

2 marks per definition

explain why a contestable market may be more productively efficient:

up to a further 6 marks

explain why a contestable market may be more allocatively efficient:

up to a further 6 marks

explain why a non-contestable market may be more dynamically efficient:

up to a further 6 marks

explain any other relevant point e.g. other efficiency concepts; application of market structure analysis for perfect competition, monopoly or oligopoly:

up to 3 marks per point**Maximum of 10 marks for an answer with a full explanation of market contestability but no explanation of efficiency in the context of contestable and non-contestable markets, or vice versa.****MAXIMUM FOR PART (a) 20 MARKS**

2 (b) Do you agree that there is no need for competition policy? Justify your answer. (30 marks)
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Answers which are solely provide historical description of competition policy will not reach Level 3. However, a candidate who distinguishes between interventionist competition policy and the less interventionist policy suggested by contestable market theory is likely to reach at least Level 3, even if the answer lacks descriptive detail. Analytical skills will be displayed if and when a candidate applies relevant theory, e.g. contestable market theory, or market structure, conduct and performance theory, to particular market structures. Evaluatory skills will be displayed when candidates discuss the significance of their analysis. They might argue that competition policy in the form of regulation is needed to make markets more contestable but that the policy can be removed or reduced once contestability has been established. Good answers may distinguish between *actual* and *potential* contestability. Some evaluation, building on analysis, is required to score 21 marks or higher (Levels 4 and 5).

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 competition policy;
- Different aspects of competition policy towards monopoly, mergers and restrictive practices;
- Different types of competition policy, interventionist and non-interventionist;
- Theoretical approaches to competition policy, ‘structure, conduct and performance’, contestable market theory etc;
- Relevant application of theory to different market structures;
- Natural monopoly arguments;
- The role of regulation and competition policy;
- Application of efficiency concepts;
- Discussion of advantages of competition policy;
- Discussion of disadvantages of competition policy;
- Use of evidence;
- Overall evaluation and assessment.

Also give credit for:

- Relevant use of data and/or candidate’s knowledge;
- Relevant use of evidence;
- Overall assessment.

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS

3

Total for this question: 50 marks

3 (a) Explain how the law of diminishing returns and returns to scale affect a firm's costs of production.
(20 marks)

For candidates who:

explain the meaning of 'returns' in a short-term context: **up to 2 marks**

explain the law of diminishing returns: **up to 6 marks**

illustrate the law on a diagram: **up to 3 marks**

Maximum of 6 marks**For candidates who:**

explain how the law of diminishing returns affects short-run costs: **up to 6 marks**

illustrate short-run costs on a diagram: **up to 3 marks**

Maximum of 6 marks**For candidates who:**

explain the meaning of 'returns' in a long-run context: **up to 2 marks**

explain returns to scale: **up to 6 marks**

illustrate returns to scale on a diagram (if a LRAC diagram is used, do not double mark in the next section): **up to 3 marks**

Maximum of 6 marks**For candidates who:**

explain how returns to scale affect long-run cost curves: **up to 6 marks**

illustrate long-run costs on a diagram: **up to 3 marks**

Maximum of 6 marks**Maximum of 10 marks if only returns or costs are covered.****Maximum of 14 marks if the linkage between returns and costs is explained ONLY in the short run OR in the long run.****MAXIMUM FOR PART (a) 20 MARKS**

- 3 (b) Evaluate the view that the separation of ownership from control in large firms inevitably causes diseconomies of scale. (30 marks)

Good answers may explain why the growth of large firms often leads to a separation of ownership and control, and that the growth may lead to diseconomies of scale. The answer might argue that the two are not necessarily linked, and that, in many cases, separation of ownership from control is accompanied by economies of scale rather than by diseconomies of scale. Answers which solely explain and discuss the significance of diseconomies of scale, without addressing the issue posed by the question cannot reach Level 3, but a good answer of this type will be at the top of Level 2. Some knowledge of the advantages and disadvantages of large size and a reasonable attempt to analyse the issue posed by the question will reach Level 3, and will reach a mid to higher Level 3 if there is an attempt at evaluation. Fuller evaluation, building on analysis, is required to score 21 marks or higher (Levels 4 and 5). The main argument in support of the assertion is that the separation of ownership from control, by reducing shareholders' power to discipline executive directors pursuing managerial objectives at the expense of shareholders' interests, may promote managerial diseconomies of scale. The main counter-arguments relate to the word 'inevitably' in the question, and to the fact that separation of ownership from control may coexist with diseconomies of scale but not be their cause.

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:

- Causes of the separation of ownership from control in large firms;
- Analysis and evaluation of its significance;
- Analysis of how the separation of ownership from control may create disadvantages for large firms;
- Causes of disadvantages of size / diseconomies of scale etc.;
- Relevant discussion of particular diseconomies of scale e.g. managerial diseconomies
- Analysis and evaluation of the significance of diseconomies of scale;
- Relevant discussion of economies of scale;
- Understanding of coincidence, and cause and effect
- Use of evidence from real world firms;
- Quality of the evaluation;

Also give credit for:

- Relevant use of data and/or candidate's knowledge;
- Relevant use of evidence;
- Overall assessment.

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS

4

Total for this question: 50 marks

4 (a) Explain how, by adversely affecting the environment, economic activity can lead to market failure. (20 marks)

For candidates who:

define market failure: **2 marks**

identify a type of environmental market failure e.g. a missing market in environmental pollution: **up to 2 marks**

explain the identified type (max 4 if there is no reference to effect of economic activity): **up to 8 marks**

providing a relevant example of the type: **up to 2 marks each example, up to a maximum of 4 mark per type**

use a relevant diagram: **up to 4 marks**

MAXIMUM FOR PART (a) 20 MARKS

4 (b) Evaluate the view that government intervention can correct all the market failures caused by the effects of economic activity on the environment. (30 marks)

Good answers may explain that governments can use the usual policies of taxation, subsidy, regulation, fines, exhortation, education, research, provision of recycling facilities etc. to reduce and sometimes eliminate **some** of the market failures caused by the effect of economic activity on the environment. To reach Levels 4 and 5, answers must analyse the implications of, and evaluate the significance of, the word **all** in the question. Many market failures related to the environment have international effects that are beyond the scope of an individual government to reduce or eliminate. Also, world-wide economic growth may increase the global effect of the market failure at a faster rate than the rate at which an individual government can reduce it. Reward answers that make these distinctions, particularly the distinction between individual government policy and co-operative policy between governments. Reward also evidence of examples of success, e.g. the inter-government agreement to reduce emissions of gases that created the gap in the atmospheric ozone layer. Good answers will argue that governments may be able to correct some but not all market failures caused by the effect of economic activity on the environment.

Answers which solely provide a narrow text-bookish description of policies to deal with externalities etc., without properly addressing the question, cannot rise above Level 2, but a reasonably full description will be at the top of Level 2. Accurate analysis, using appropriate diagrams, e.g. the effect of a tax on an MSB/MSC diagram, can take such an answer into Level 3, but no higher. To score 21 marks or higher (Levels 4 and 5), there must be wider and deeper analysis, developing ideas such as those in the paragraph above.

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:

- Identification of the most serious market failures causing environmental change, e.g. global warming;
- Explanation of the international nature and effects of such market failure;
- Description and analysis of policies an individual government can implement to reduce or eliminate particular market failures;
- Evaluation of the effect(s) of policies implemented by individual governments;
- The effects of world-wide economic growth;
- Discussion of the need for multilateral governmental activity;
- Analysis and evaluation of whether this can be sufficiently forthcoming;
- Does government failure, e.g. through wars and benign neglect, worsen market failures and create new failures?
- Discussing whether government intervention creates adverse or unintended consequences;
- Sustainable growth arguments;
- Can the market itself reduce the market failures, e.g. through price changes as resources are depleted, and through peoples' demand for more normal goods (a better environment) as they become richer?
- Overall analysis and evaluation.

Also give credit for:

- Relevant use of data and/or candidate's knowledge;
- Relevant use of evidence;
- Overall assessment.

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS