



General Certificate of Education

Economics 6141

ECN5: Business Economics and Distribution of Income

Mark Scheme

2008 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.

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Set and published by the Assessment and Qualifications Alliance.

Advanced Level Economics**June 2008****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 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 also 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 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 very 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 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 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 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 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 appropriate format 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**Total for this question: 50 marks**

1 (a) Using Extract A, describe two features of the UK pharmaceutical market in 2004. (4 marks)
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It is arguable as to whether the UK pharmaceutical market is an oligopoly. Credit answers that state it is an oligopoly, but also credit answers that state that the market is competitive. Do not credit assertions that the market is perfectly competitive, or a monopoly, but do credit the assertion that the market is an example of monopolistic competition. However, this response is not expected because monopolistic competition is not in the AQA specification.

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

- a statement that there are many firms in the UK pharmaceutical market
- describing the market as an oligopoly, or oligopolistic (10 largest firms sharing over 50% of the market)
- calculation of particular concentration ratios, e.g. the three firm concentration ratio (26.1%)
- noting that the largest company, Pfizer, has a market share of just 10.7%
- noting the importance of 'others'
- noting the importance of foreign-owned companies in the UK pharmaceutical market

A maximum of **1 mark** may be awarded if the candidate simply trawls through the data, with no attempt at overview.

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) ‘...large pharmaceutical companies in rich countries successfully restrict output and make supernormal profit’ (**Extract B**, lines 8-10).

With the help of a monopoly diagram, explain this statement.

(6 marks)

For the written answer

For candidates who:

define supernormal profit:

1 mark

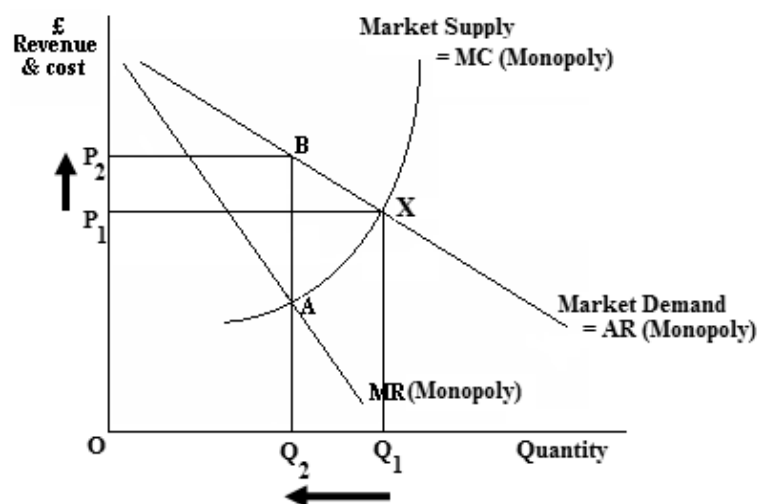
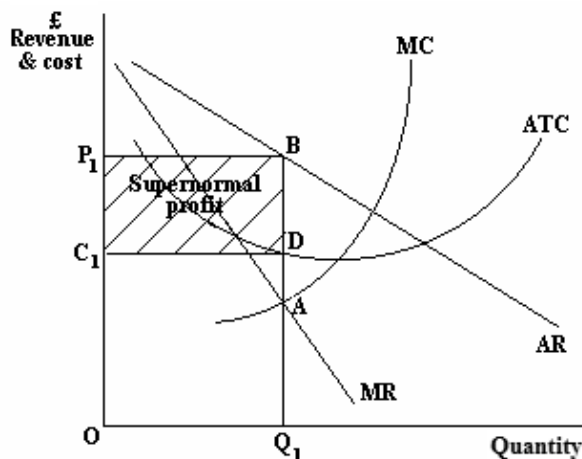
Award up to 2 marks, in each case, for relevant points such as the following:

- stating that the ability to restrict output and/or make supernormal profit requires the exercise of monopoly power
- stating/explaining how entry barriers enable a firm to restrict output and make supernormal profit
- explaining how the $MR=MC$ rule determines the level of output
- explaining how the candidate’s diagram shows output being restricted
- explaining how the candidate’s diagram shows supernormal profit being made

Maximum of 4 marks for the written answer

For the diagram

Reward any relevant diagram. Two likely diagrams are shown below. The left-hand diagram shows supernormal profit being made, but it does not show explicitly output being restricted. The right-hand diagram shows output being restricted to Q_2 , compared to the output in perfect competition of Q_1 , but it does not explicitly show supernormal profit.



Award 1 mark, in each case, for drawing and labelling the following:

- accurate drawing and labelling of axes AND a relevant set of curves relating to monopoly
- illustration of profit-maximising price where $MR = MC$
- illustration of profit-maximising output where $MR = MC$
- illustration of perfectly competitive level of output where $P = MC$
- labelling supernormal profit
- illustration of output being restricted

Maximum of 4 marks for the diagram

Maximum of 3 marks for a written answer with no relevant diagram, or a diagram with no written answer

MAXIMUM FOR PART (b) 6 MARKS

1 (c) Extract C (lines 13-14) suggests that the UK's second-largest pharmaceutical company, AstraZeneca, invests heavily in research and development.

Analyse the long-term private benefits **and** costs that may be experienced by a pharmaceutical company when investing in the development of new drugs. (10 marks)

The question mentions benefits and costs (in the plural). Two or more benefits and two or more costs analysed can earn full marks, but an answer that provides a bullet point list without any analysis should be restricted to a maximum at lower Level 2 (4 marks).

An answer that only analyses long-term private benefits (or costs) should be restricted to a maximum of Lower Level 2 (4 marks).

Issues and areas for analysis include:

- Lower costs and higher profit
- Long-term benefits as against long-term costs
- Ability to enjoy monopoly power in the future, via patent protection
- Higher costs because the investment fails
- Securing (or failing to secure) a future product portfolio and income stream

LEVEL 1

At the bottom of the range, a superficial statement without analysis, of just **one benefit or cost**. At the top of the range, superficial statements, without analysis, of **one benefit and one cost**. An answer that considers only *short-term* benefits and costs, e.g. the immediate benefit of good publicity or the immediate cost of financing research, and not *long-term* benefits and costs, should be restricted to Level 1. An answer which explains *external* benefits and costs, but not *private* benefits and costs, should also be restricted to Level 1. **1 to 3 marks**

LEVEL 2

At the bottom of the range, *basic* analysis of **one benefit and one cost, or an undeveloped bullet point list**. At the top of the range, *developed* analysis of **one benefit and one cost**. **4 to 7 marks**

LEVEL 3

At the bottom of the range, *developed* analysis of **two long-term private benefits and one long-term private cost, or vice versa**. At the top of the range, *full or significantly deeper* analysis of **two long-term private benefits and one long-term private cost, or vice versa**. **8 to 10 marks**

MAXIMUM FOR PART (c) 10 MARKS

- 1 (d)** Using the data and your economic knowledge, evaluate the view that firms in industries such as pharmaceuticals and recorded music should be able to protect their market power, for example by patenting HIV drugs and through copyright protection. *(30 marks)*

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

Where there is no explicit reference to the data, award a maximum of **24 marks**.

Evaluation could be in terms of: relating the abuse of monopoly power with benefits of monopoly power such as cost reduction through economies of scale and improved dynamic efficiency; arguing the case for protecting intellectual property rights against the benefits the general public gain from free-riding; arguing that the long-term benefits for the general public may justify short-term costs incurred.

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:

- Explaining the nature of patents and copyright protection
- Relating these to the idea of intellectual property and the theory of property rights
- Patents creating barriers to entry
- Relevant application of market failure theory, e.g. in terms of the effects of free-riding
- Relevant application of government failure theory, e.g. in terms of unintended consequences, promotion of monopoly at the expense of competition
- Use of the examples in the question: pharmaceuticals, recorded music, patents, copyright law
- Use of the examples not in the question, e.g. pirated designer clothing

Other equally valid points may be discussed and should be given due credit

Also give credit for:

- an overall judgement of the issues raised
- use of diagrams
- relevant reference to the real world

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (d) 30 MARKS

Section B

Total for this question: 50 marks

2 (a) Economists often assume that firms have only one objective, to maximise profit.

Explain other objectives firms may have other than profit maximisation.

(20 marks)

Alternative objectives include:

- maximising growth
- maximising sales revenue
- maximising quantity of sales
- maximising a managerial objective
- survival
- resisting hostile takeover raids
- satisficing rather than maximising
- social objective(s)

For candidates who

define profit:

1 mark

define any other relevant concept, e.g. revenue; sales

1 mark

Maximum of 2 marks for definitions

explain the meaning of profit maximisation, e.g. equating MR and MC; maximising the difference between TR and TC:

2 marks

explain the profit maximising price and level of output in perfect competition, monopoly or oligopoly (award marks for only one of these):

Up to 2 further marks

identify an alternative objective:

2 marks per objective

(Maximum of 8 marks for identification)

explain the alternative objective:

Up to 5 further marks

provide a relevant diagram or diagrams:

**Up to 4 marks per diagram
Maximum of 8 marks for diagrams**

Maximum of 4 marks for an answer that includes no relevant points other than an explanation of profit maximisation

MAXIMUM FOR PART (a) 20 MARKS

2 (b) Evaluate the view that separation of ownership from control has an adverse effect on firms' conduct **and performance. (30 marks)**

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

Evaluation could be in terms of: explaining that for many if not most small firms, the divorce between ownership and control is non-existent, so the problem does not arise; discussing whether the owners of a business (the shareholders) have mechanisms for ensuring that managers make decisions that are consistent with profit maximisation; discussing the role of competition (in goods markets and/or the capital market and takeover activity) in resolving the problem.

To reach Level 5, firms' conduct and performance must both be mentioned. Candidates might for example discuss the pursuit of objectives other than profit maximisation as a part of firms' conduct and cost levels and profit levels/rates as a part of firms' performance.

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:

- Understanding the meaning of a separation of ownership from control
- Understanding of, and relevant application of, efficiency concepts such as productive efficiency, allocative and dynamic efficiency
- Providing plausible linkage of separation of ownership and control, business objectives, and resulting economic efficiency or inefficiency
- Relevant application of market structure theory, e.g. monopoly, oligopoly
- The principal/agent problem
- Conduct indicators such as creating entry barriers, price discrimination, excessive advertising
- The possible role of the market mechanism (in goods and/or capital markets) for resolving the problem
- The role of takeover activity
- Market failure analysis

Other equally valid points may be discussed and should be given due credit.

Also give credit for:

- an overall judgement of the issues raised
- the use of evidence
- use of diagrams

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS

Total for this question: 50 marks

3 (a) Explain how the supply of labour is determined in a labour market.	<i>(20 marks)</i>
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For candidates who:

define a labour market: **1 mark**

define the supply of labour, or any other relevant definition: **1 mark**

Maximum of 2 marks for definitions

explain the meaning of the supply of labour, e.g. the quantity of labour that a worker (or workers) is/are willing to supply at different hourly wage rates: **up to 3 marks**

provide an example of the supply of labour: **1 mark only**

distinguish between the market supply of labour and an individual's supply of labour: **1 mark**
 explaining the link between the two: **2 marks**

distinguish between an upward-sloping and a backward-bending supply curve of labour: **2 marks**

provide an explanation for an upward-sloping supply curve of labour: **up to 8 marks**

provide an explanation for a backward-bending supply curve of labour: **up to 8 marks**

explain the significance of non-monetary considerations, e.g. job satisfaction, non-monetary perks: **up to 6 marks**

explain any other relevant point, e.g. relating to elasticity; required skills for a job: **Up to 4 marks per point**

provide a relevant diagram or diagrams: **Up to 4 marks per diagram**
Maximum of 8 marks for diagrams

MAXIMUM FOR PART (a) 20 MARKS

3 (b) 'Competitive labour markets lead to an unequal and inequitable distribution of income.'

To what extent does this justify government intervention in labour markets? (30 marks)

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

Evaluation could be: interpreting the significance of the difference between 'unequal' and 'inequitable'; discussing whether or not inequality and/or inequity lead to market failure, e.g. by arguing that wage differences are not a market failure because they create incentives in labour markets; debating whether or not government intervention can lead to a better outcome.

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 competitive labour markets
- Understanding of why competitive labour markets may lead to inequality
- Understanding of why competitive labour markets may lead to inequity
- The meaning of market failure in general
- The issue of whether inequality and/or inequity lead to market failure
- Disincentive effects
- Incentive effects
- Linking inequality and/or inequity to a labour market performing better
- Methods of government intervention, e.g. progressive taxation and welfare benefits directed at the poor, national minimum wage
- Government failure issues

Other equally valid points may be discussed and should be given due credit.

Also give credit for:

- an overall judgement of the issues raised
- use of diagrams
- reference to real world examples

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS

Total for this question: 50 marks

4 (a) Explain why externalities result in a misallocation of resources.	(20 marks)
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For candidates who:

define an externality: **1 mark**

define any other relevant concept, e.g. negative externality; positive externality;
resource: **1 mark per definition**

Maximum of 2 marks for definitions

explain the meaning of a misallocation of resources: **up to 3 marks**

explain how negative externalities lead to a misallocation of resources through
overproduction of a good in a market: **up to 8 marks**

provide examples of negative externalities: **1 mark per example, up to a maximum of 2 marks**

explain how positive externalities lead to a misallocation of resources through
underproduction of a good in a market: **up to 8 marks**

provide examples of positive externalities: **1 mark per example, up to a maximum of 2 marks**

provide a relevant diagram or diagrams: **Up to 4 marks per diagram
Maximum of 8 marks for diagrams**

**Maximum of 16 marks if the answer explains only how negative (or positive) externalities result
in a misallocation of resources**

MAXIMUM FOR PART (a) 20 MARKS

4 (b) Evaluate the view that the most effective way to reduce environmental externalities is to create markets in permits to pollute. (30 marks)

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

Evaluation could be in terms of: introducing the idea that different forms of pollution may require different policy approaches; recognising the difference between preventing future pollution and dealing with the effects of pollution that has already occurred; identifying and discussing criteria for evaluating policy effectiveness; discussing the virtues of market-orientated policies versus interventionist policies; discussing long-term versus short-term effects of different approaches; evaluating existing markets in permits to pollute.

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 environmental externalities
- Recognising that pollution is an economic 'bad'
- Recognising that pollution is a negative externality or external cost
- Recognising and explaining that a market in pollution permits creates defined property rights that can be traded in a market
- Recognising and explaining the fact that pollution permits are an example of a market-orientated approach
- Explaining how a market in permits to pollute operates and how it may reduce pollution
- Relating the market to resource allocation and the functions of prices in a market economy
- Recognising and explaining possible disadvantages of a market in pollution permits, e.g. if the upper limit for allowable pollution is set too high, the market may encourage rather than reduce total pollution
- Comparing a market in permits to pollute with alternative policies such as taxation and regulation

Other equally valid points may be discussed and should be given due credit.

Also give credit for:

- an overall judgement of the issues raised
- use of diagrams
- reference to real world examples

Maximum of 20 marks if markets in permits to pollute are not compared with at least one alternative policy.

USE THE LEVELS MARK SCHEME ON PAGES 4 & 5

MAXIMUM FOR PART (b) 30 MARKS