

Cambridge International AS & A Level

Paper 4 Data Response and Essays

MARK SCHEME

Maximum Mark: 60

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always whole marks (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit
 is given for valid answers which go beyond the scope of the syllabus and mark scheme,
 referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these
 features are specifically assessed by the question as indicated by the mark scheme. The
 meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

© UCLES 2023 Page 2 of 14

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Social Science-Specific Marking Principles (for point-based marking)

1 Components using point-based marking:

Point marking is often used to reward knowledge, understanding and application of skills.
 We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

- **a** DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
- b DO credit alternative answers/examples which are not written in the mark scheme if they are correct
- **c** DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons ...).
- **d** DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
- **e** DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
- f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
- **g** DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the
 marking but is not required to earn the mark (except Accounting syllabuses where they
 indicate negative numbers).

3 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

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4 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

© UCLES 2023 Page 4 of 14

Assessment objectives

AO1 Knowledge and understanding

- Show knowledge of syllabus content, recalling facts, formulae and definitions.
- Demonstrate understanding of syllabus content, giving appropriate explanations and examples.
- Apply knowledge and understanding to economic information using written, numerical and diagrammatic forms.

AO2 Analysis

- Examine economic issues and relationships, using relevant economic concepts, theories and information.
- Select, interpret and organise economic information in written, numerical and diagrammatic form.
- Use economic information to recognise patterns, relationships, causes and effects.
- Explain the impacts and consequences of changes in economic variables.

AO3 Evaluation

- Recognise assumptions and limitations of economic information and models.
- Assess economic information and the strengths and weaknesses of arguments.
- Recognise that some economic decisions involve consideration of factors such as priorities and value judgements.
- Communicate reasoned judgements, conclusions and decisions, based on the arguments.

© UCLES 2023 Page 5 of 14

Table A: AO1 Knowledge and understanding and AO2 Analysis

Use this table to give marks for each candidate response for AO1 Knowledge and understanding and AO2 Analysis for **Questions 2**, **3**, **4** and **5**.

Level	Description	Marks
3	A detailed knowledge and understanding of relevant economic concepts is included, using relevant explanations. Explanations are supported by examples, where appropriate.	11–14
	The response clearly addresses the requirements of the question and explains economic issues, and fully develops these explanations.	
	Analysis is developed and detailed and makes accurate and relevant use of economic concepts and theories. Where necessary, there is accurate and relevant use of analytical tools such as diagrams and formulae, and these are fully explained.	
	Responses are well-organised, well-focused and presented in a logical and coherent manner.	
2	Knowledge and understanding of some relevant economic concepts is included, using explanations and examples that are limited, over-generalised or contain inaccuracies.	6–10
	The response addresses the general theme of the question and the relevant economic issues, with limited development.	
	Analysis is generally accurate with some development but little detail. Uses analytical tools such as diagrams and formulae where necessary. Use of these tools is partially accurate or not fully explained.	
	Responses are generally logical and coherent but are sometimes lacking in focus or organisation.	
1	A small number of relevant knowledge points are included and the response is limited by significant errors or omissions.	1–5
	The response has little relevance to the question.	
	Analysis where provided is largely descriptive. Use of analytical tools such as diagrams and formulae, where necessary, may contain significant errors or be omitted completely.	
	Responses show limited organisation of economicideas.	
0	No creditable response.	0

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Table B: AO3 Evaluation

Use this table to give marks for each candidate response for AO3 Evaluation for $\bf Questions~2,~3,4$ and $\bf 5$.

Level	Description	Marks
2	Provides a justified conclusion or judgement that addresses the specific requirements of the question.	4–6
	Makes developed, reasoned and well-supported evaluative comment(s).	
1	Provides a vague or general conclusion or judgement in relation to the question.	1–3
	Makes simple evaluative comment(s) with no development and little supporting evidence.	
0	No creditable response.	0

© UCLES 2023 Page 7 of 14

Section A Data response

Question	Answer	Marks
Follow the	point-based marking guidance at the top of this mark scheme.	
1(a)	Explain what is meant by equity and how the ban on motorcycle taxis and tricycles affects equity for commuters in Lagos	3
	Definition of equity: fairness/fairly treated/justice/people in the same situation gain the same treatment. (1)	
	Poorer workers: rely on motorcycles and tricycles most. (1) • Poorer workers need to walk long distances in the heat (1)	
1(b)	Explain, with the help of a diagram, what is meant by a negative externality and identify two examples of negative externalities from the article	6
	Definition of a negative externality: eg Negative/bad spillover effects/Third party effects of a private transaction. (1) Diagram: Correctly labelled axes: (1) private/social costs and private/social benefits (1) explanation of what the diagram shows: over consumption of the good. (1)	
	Deaths, impact on environment, congestion (2 x 1)	
1(c)	From the evidence, consider whether the Singapore quota system or the ERP was more effective in solving the problem of traffic congestion	6
	Quota system would increase price/cost of cars (1) but encouraged participants to use cars more. (1) Increases congestion (1)) ERP more flexible to changing road conditions (1) based on time of day (1) level of congestion (1) motorist consider their time of travel/route/method of transport (1) Max 5 Evidence suggest ERP more effective (1)	
1(d)	Assess whether government's involvement in the provision of transport systems is because transport is a public good.	5
	Definition of a public good: non-excludable (1) non-rival (1)	
	Travel needs a ticket/payment for use (1) and trains etc. have a given capacity (1)	
	Therefore, transport is not a public good (1)	

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Question	Answer	Marks
EITHER		
2(a)	Evaluate the use of indifference curve analysis to derive the demand curve for a normal good and the demand curve for an inferior good.	20
	Use Table A: AO1 Knowledge and understanding and AO2 Analysis and Table B: AO3 Evaluation to mark candidate responses to this question.	
	AO1 and AO2 out of 14 marks. AO3 out of 6 marks.	
	Indicative content Responses may include:	
	AO1 Knowledge and understanding and AO2 Analysis	
	 Assumptions of indifference curve analysis including: rational consumers who prefer more to less, a two-good world, the prices of the goods are (initially) constant, the goods can be substituted for each other, transitivity, if there is indifference between A and B and indifference between B and C, there is indifference between A and C perfect knowledge of the market. Definition of an indifference curve (IC), explanation of convex IC and analysis of rising levels of satisfaction and the creation of an IC map. Definition of a budget line (BL) and analysis of rising/falling income levels on the BL and consumption Explanation of the substitution effect (SE) and the income effect (YE) when the price of a good changes. Analysis of the effect of a positive and negative YE when combined with the SE to account for a normal and inferior good. The combination of the IC and BL maps to show point of tangency between IC and BL to give a combination of the 2 goods that gives the highest level of satisfaction given the level of income. 	
	AO3 Evaluation	
	 Consumer rationality: indifference analysis assumes that consumers act rationally. They are of a calculating mind, carrying numerous combinations of different commodities in their heads, can substitute one for the other, compare their total utilities and make a rational choice between various combinations of goods. 	

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Question	Answer	Marks
2(a)	 As the effect of a reduction in price is an increase in demand for both a normal and inferior good (except in the case of Giffen good) it is not possible to know whether a good is normal or inferior. It is difficult to apply the concept of substitutability to goods such as consumable durables, which are one-off indivisible purchases and the choice is between, for example, 1 fridge and 4 weeks' food. A consumer is faced with a much more complex world than the two-good world of the model because a consumer buys not just two but a large number of commodities to satisfy their innumerable wants. IC analysis is a static analysis and consumer preferences may change over time. Accept all valid responses. 	
	AO1 Knowledge and understanding and AO2 Analysis	14
	AO3 Evaluation	6

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Question	Answer	Marks
OR		
3(a)	The model of perfect competition is the ideal form of market structure because it is the most efficient.	20
	With the help of diagrams, evaluate this statement.	
	Use Table A: AO1 Knowledge and understanding and AO2 Analysis and Table B: AO3 Evaluation to mark candidate responses to this question.	
	AO1 and AO2 out of 14 marks. AO3 out of 6 marks.	
	Indicative content Responses may include:	
	AO1 Knowledge and understanding and AO2 Analysis	
	 Definitions of productive and allocative efficiency with diagrams. Reference to the short run and long run Definition of perfect competition, explanation of the assumptions of the perfectly competitive market in terms of number of participants, freedom of entry and exit. An analysis of how the assumptions lead to the equilibrium position in perfect competition and the implications of this in terms of productive and allocative efficiency. Diagrams to show short run profits, long run profits and resolution to normal profits. AO3 Evaluation	
	 Evaluation may be concerned with the realism of perfect competition as a model of economic behaviour or its ability to achieve economic efficiency. A demonstration of the model of perfect competition to set a standard of equilibrium at which both productive and allocative efficiency occur. A comparison of other market competitive structures outcome(s) with the efficiency suggested by perfect competition. Relevance to real world activity and the paucity of real-world examples of perfect competition. The impact of monopoly profits on the ability to spend on research and development (R&D), and the implications for dynamic efficiency. 	
	AO1 Knowledge and understanding and AO2 Analysis	14
	ç ,	
	AO3 Evaluation	6

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Question	Answer	Marks
EITHER		
4(a)	The presence of multinational corporations (MNCs) in a low-income country always promotes economic growth in that country.	20
	Evaluate this statement.	
	Use Table A: AO1 Knowledge and understanding and AO2 Analysis and Table B: AO3 Evaluation to mark candidate responses to this question.	
	AO1 and AO2 out of 14 marks. AO3 out of 6 marks.	
	Indicative content Responses may include:	
	AO1 Knowledge and understanding and AO2Analysis	
	 Transference of skills and knowledge: managerial and workshop. Increased tax base giving opportunities to government to invest in the economy. Definitions of MNC and short term (actual) and long-term (potential) economic growth. Impact of foreign direct investment (FDI) on a country's aggregate supply/PPF. Analysis may be in terms of the multiplier, the circular flow of income or AD/AS. The improvement of education and health and the promotion of long term growth AO3 Evaluation Evasion of enhanced legal limits in home country: environmental impact - FDI can be used to export 'dirty' industry and transfer negative externalities to another country. Evasion of home employment/health and safety laws which increase costs. Destruction of host country's indigenous industry by large scale MNC production. Negative impact on employment exceeds benefit of MNC employment. 	
	 The MNC may establish a local monopoly that exploits the consumers with higher prices and lower output. MNC may practice transfer pricing to remove profits from developing country to tax haven. The impact on macroeconomic aims of the government is analysed. The jobs created in the local environment may be low-skilled, with the 	
	multinational employing expatriate workers for the more senior and skilled roles.	
	Accept all valid responses.	1.4
	AO1 Knowledge and understanding and AO2 Analysis	14
	AO3 Evaluation	6

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Question	Answer	Marks
OR		
5(a)	Consider the relative merits of gross national income (GNI) and the multidimensional poverty index (MPI) as measures of the standard of living.	20
	Use Table A: AO1 Knowledge and understanding and AO2 Analysis and Table B: AO3 Evaluation to mark candidate responses to this question.	
	AO1 and AO2 out of 14 marks. AO3 out of 6 marks.	
	AO1 Knowledge and understanding and AO2 Analysis	
	 Definition of GNI: the total income earned within a country in a year plus net receipts from abroad of compensation of employees, property income and net taxes less subsidies on production. This is an aggregate measure of an economy's income. GNI measures in monetary terms. For many developing countries which rely on remittances from overseas workers, this will boost the value of GNI. Other countries that have invested overseas will receive a stream of dividends and interest that boosts their GNI. Definition of the MPI Some explicit breakdown of the categories which are involved in the construction of MPI Health: 1/3rd weighting includes child mortality and nutrition (1/6th each); Education: 1/3rd weighting includes years of schooling and school attendance (1/6th each); and Standard of living 1/3 weighting includes cooking fuel, sanitation, drinking water, electricity, housing and assets (1/18th each). The measures are fundamentally different in their approaches GNI is concerned with money values whilst MPI is concerned with the adequacy of provision of a number of essential services and goods linked to the Millennium Development Goals. 	
	AO3 Evaluation	
	Evaluation may be by individual measure or by comparing the measures.	
	 GNI The comprehensiveness of the data collection: The GNI figures needs deflating for the effects of price increases and changes in the population to achieve real GNI per head, which allows for comparisons over time. The range of incomes which are included 'the dark economy', illegal activity – drugs crime etc. the ability to count all income flows between countries. 	

© UCLES 2023 Page 13 of 14

Question	Answer	Marks
5(a)	 Incomes from activities that produce negative externalities or are the result of monopoly profits increase the GNI but reduce the level of economic efficiency. Real GNI per head can be used as a simple measure of economic growth but lacks a distributional measure. Additional measures such as the Gini coefficient need to be calculated to gain a measure of the distributional effect of a given GNI. Both these measures are averages which disguise a wide range of individual circumstances. The data collection for MPI is more complex than for GNI. The criteria for GNI are well established and are given. Monetary-based poverty measures can omit a lot. The overlap between monetary and non-monetary measures of poverty is not perfect. In most cases, not all individuals who are income-poor are multidimensionally poor and not all multidimensionally poor individuals are income-poor. Both monetary and non-monetary measures of poverty are needed to better inform the policies intended to address the needs and deprivations faced by poor populations. Economic growth does not always reduce poverty or deprivation. Several studies have found that economic growth is not strongly associated with a reduction in other deprivations, such as child malnutrition or child mortality. Real GNI per head data is available for 188 (most) countries of the world whilst MPI data is only available for 103 poorer countries. MPI for education measures inputs not outputs, attending school is not the same as learning to read. 	
	AO1 Knowledge and understanding and AO2 Analysis	14
	AO3 Evaluation	6

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