ECO.MIC26 Exam Technique: Extended Essays on Rational Choice and Utility Theory

Total Marks

AQA 7136 · Calculators not allowed · about 120 minutes

Name: ________________________________ Date: ____ / ____ / ______

Answer all questions. Full sentences are required for the three extended essay practice questions (Questions 3, 4 and 5). Show any planning for essays clearly. Time guidance: spend about 40 minutes on the three practice essays combined and the rest of the time on technique tasks.

1 Command-word discrimination task in the context of utility theory: below are four AQA-style question stems. For each stem, state which command word is best suited from Analyse, Discuss or Evaluate, and give one sentence explaining what a candidate must do to meet that command word in an essay about utility.

(a) Stem A: "Explain how the law of diminishing marginal utility leads to a downward-sloping individual demand curve." Decide the best command word and give one-sentence justification for that command word in this utility context. (2)

(b) Stem B: "Assess the usefulness of marginal utility theory for explaining real-world consumer choice." Decide the best command word and give one-sentence justification. (2)

(c) Stem C: "Describe how a consumer would allocate income between two goods to maximise utility." Decide the best command word and give one-sentence justification. (2)

(Total for Question 1 is 6 marks)

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2 Model answer gap-spotting for utility essay technique: a partially completed 12-mark model paragraph is given below on the topic 'limits of rational economic man'. Read it and identify up to four distinct missing analytical or evaluative points that prevent this paragraph from achieving full marks. For each missing point you name, explain in one sentence why it matters to raise the mark. Use the same topic context in your answers.

(Total for Question 2 is 8 marks)

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3 Write an extended essay answer for an AQA-style 20-mark question on diminishing marginal utility and the demand curve. Include a brief plan and a final supported judgement. Draw a diagram: label axes Price and Quantity, show a downward-sloping demand curve and annotate one point where diminishing marginal utility is used to justify a substitution to a lower quantity when price rises.

Practice Essay 1, 20 marks. Evaluate the view that the law of diminishing marginal utility is sufficient to explain why individual demand curves slope downwards.

(Total for Question 3 is 20 marks)

4 Write a structured essay considering both the pedagogic strengths and the practical weaknesses of teaching welfare maximisation via total and marginal utility when incomes change. Include a short plan and at least one evaluative paragraph that links to policy implications. Draw a labelled diagram showing diminishing MU and indicate the income effect on consumption of a normal good.

Practice Essay 2, 20 marks. Discuss the strengths and weaknesses of using total and marginal utility in teaching consumers how to maximise welfare when incomes change.

(Total for Question 4 is 20 marks)

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5 Write a full evaluative essay linking marginal utility theory and the rational economic man to behavioural economics critiques. Include a plan, a diagram if useful, and a final supported judgement that addresses policy relevance. You should consider magnitude and persistence of behavioural biases, heterogeneity of agents, and when standard theory may still be the better guide.

Practice Essay 3, 20 marks. Evaluate the view that behavioural economics makes the rational economic man model and marginal utility theory obsolete for policy design.

(Total for Question 5 is 20 marks)

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6 Technique short task: Plan a 6-mark paragraph for an essay on deriving demand from marginal utility when price rises. Provide three numbered sentences that form the paragraph's core analytical chain.

(Total for Question 6 is 1 mark)

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7 Exam technique quick-win: briefly state two distinct evaluation points (one behavioural, one methodological) that would strengthen an essay criticising the rational economic man assumption. Each point in one short sentence.

(Total for Question 7 is 2 marks)

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8 Diagram technique: In the context of marginal utility deriving demand, describe exactly what a correct labelled diagram must show to earn full diagram marks in an essay. Give three checklist points a marker would look for.

(Total for Question 8 is 3 marks)

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9 Short application task: Give one brief real or hypothetical example, in one sentence, where marginal utility theory will badly mispredict consumer behaviour. Name the empirical phenomenon and why MU fails.

(Total for Question 9 is 2 marks)

10 Microtechnique checkpoint: State in one sentence the difference between a substantive evaluative point and a critique that merely restates a limitation. Provide one example evaluative sentence about MU theory.

(Total for Question 10 is 3 marks)

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11 Short planning task: For the 20-mark Evaluate question linking behavioural economics to policy (Question 5), list in bullet form two pieces of empirical evidence or real-world examples you would use to support the claim that behavioural biases matter for policy.

(Total for Question 11 is 2 marks)

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12 Mini-evaluation ticklist: Give two short checklist criteria, each in one sentence, that you would use when deciding whether to include a diagram in your 20-mark essay answer about utility theory and policy.

(Total for Question 12 is 3 marks)

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13 Final technique check: In one short paragraph (three to five sentences), write the concluding judgement you would place at the end of Question 5 that balances behavioural economics and standard marginal utility theory for policy design.

(Total for Question 13 is 2 marks)

Mark scheme · ECO.MIC26 Exam Technique: Extended Essays on Rational Choice and Utility Theory

Question 1

- (a) **B1** correctly assigns the stem to Analyse or Explain, here Analyse is acceptable but AQA-style prefers Analyse when asking for mechanisms
- (a) **B1** one-sentence justification stating the candidate must unpack the causal mechanism linking marginal utility to price and quantity demanded, not simply define terms
- **(a) Answer: Best command word: Analyse. Justification: the answer must unpack the causal mechanism by which marginal utility falls as consumption rises and how that implies consumers buy less at higher prices, showing steps of reasoning.**
- (b) **B1** correctly assigns the stem to Evaluate or Assess, here Evaluate is the best fit
- (b) **B1** one-sentence justification noting that the candidate must weigh strengths and limitations and reach a supported judgement
- **(b) Answer: Best command word: Evaluate. Justification: the answer must weigh the strengths and limitations of marginal utility theory and reach a supported judgement about its real-world usefulness.**
- (c) **B1** correctly assigns the stem to Describe or State, here Describe is appropriate
- (c) **B1** one-sentence justification saying the candidate should outline the conditions for utility maximisation, e.g. MU per pound equalisation, without deep evaluative judgement
- **(c) Answer: Best command word: Describe. Justification: the answer should outline how income is allocated to equalise marginal utility per pound across goods, presenting the rule and brief steps of the allocation process.**

Question 2

- **M1** identifies a missing analytical point: no concrete real-world example of inconsistent choice is given (for example, preference reversals in lab experiments or time-inconsistent choices)
- **A1** explains why its absence matters: an example would support the critique by showing the assumption fails empirically and allow development into consequences for demand predictions
- **M1** identifies a missing analytical point: the paragraph lacks discussion of bounded rationality and cognitive costs which limit optimization
- **A1** explains why its absence matters: considering bounded rationality explains mechanistically why the optimisation assumption is unrealistic and offers an alternative behavioural prediction
- **M1** identifies a missing evaluative point: no consideration of the conditions under which the assumption might be a useful approximation (e.g. for simple discrete choices or small stakes)
- **A1** explains why its absence matters: showing when the model remains useful allows a balanced judgement, which is required for higher marks
- **M1** identifies a missing methodological counter-argument: no mention of how market-level outcomes may still align with utility theory even if individuals deviate
- **A1** explains why its absence matters: this point would develop analysis by showing micro deviations do not automatically invalidate aggregate demand predictions, strengthening evaluation

Question 3

- **Level 1** (1-5): Basic knowledge of the law of diminishing marginal utility with little application to demand, minimal structure and no balanced evaluation. May include an unlabelled or missing diagram.
- **Level 2** (6-10): Accurate explanation of diminishing marginal utility and a simple link to why demand falls as price rises, with at least one clear diagram. Limited evaluation or unbalanced discussion, and the judgement is weak or unsupported.
- **Level 3** (11-15): Good analysis linking diminishing marginal utility to the downward slope of demand, including mechanism and diagram annotation. Some evaluation of alternative explanations or limitations, and a supported but not fully developed judgement.
- **Level 4** (16-20): Comprehensive answer: explains the mechanism clearly, correctly uses marginal utility per pound reasoning to derive demand, includes a well-labelled diagram, considers alternative explanations and limitations, and reaches a balanced, well-supported judgement.
- **Indicative content:**
  - Definition of marginal utility and the law of diminishing marginal utility
  - Mechanism: as consumption of a good increases MU falls, so consumers require a lower price to buy additional units, linking MU to willingness to pay
  - Argument that MU per pound equalisation across goods implies substitution when price changes, giving a downward-sloping demand curve
  - Diagram: price vertical, quantity horizontal, downward-sloping demand curve, annotation linking movement along curve to falling MU
  - Limitations and evaluation: other reasons for downward slope such as income effects, substitution effects independent of MU, diminishing marginal rate of substitution in indifference-curve framework, and empirical evidence from behavioural economics
  - Consideration of cases where MU explanation is weak: multi-attribute goods, corner solutions, habitual goods, or where utility is not cardinal
  - Conclusion: balanced judgement that MU offers a clear micro-foundation for demand but is not the sole explanation and sometimes fails empirically

Question 4

- **Level 1** (1-5): Limited description of total and marginal utility with minimal discussion of income changes, lacking structure and evaluation.
- **Level 2** (6-10): Clear explanation of total and marginal utility and some discussion of how income changes affect consumption, with a simple diagram. Evaluation is present but undeveloped.
- **Level 3** (11-15): Good discussion of both strengths and weaknesses, includes diagram and considers empirical or behavioural caveats, and provides a supported policy implication or application.
- **Level 4** (16-20): Comprehensive and balanced discussion, integrates theoretical exposition with pedagogic clarity, empirical evidence and policy implications, and concludes with a well-argued judgement on the usefulness of MU teaching for welfare maximisation.
- **Indicative content:**
  - Explanation of total utility and marginal utility and how students can use MU to judge additional consumption at different incomes
  - Strengths: clear, tractable model; teaches optimisation and trade-offs; provides numerical examples for classroom pedagogy
  - Use of diagram to show diminishing MU and to show how a rise in income can increase consumption of a normal good (income effect)
  - Weaknesses: cardinal utility is a strong assumption, interpersonal comparisons of utility problematic, real consumers face information costs and behavioural biases
  - Policy implications: MU-based teaching helps in understanding taxation/subsidy effects but overlooks distributional and behavioural factors so policy based solely on MU could mispredict outcomes
  - Conclusion: MU is a useful teaching tool but must be complemented by behavioural and welfare economics to give students a realistic view

Question 5

- **Level 1** (1-5): Basic description of behavioural critiques or rational choice, lacking development, application to policy, and no clear judgement.
- **Level 2** (6-10): Accurate description of behavioural biases and some implications for marginal utility theory and policy, but limited analysis and weak conclusion.
- **Level 3** (11-15): Good analysis contrasting behavioural findings with rational choice predictions, examples of policy implications, and a supported but not fully nuanced judgement.
- **Level 4** (16-20): Comprehensive evaluation: integrates theoretical critique, empirical evidence on bias magnitude and persistence, heterogeneity, contexts where behavioural insights matter for policy, and concludes with a nuanced, evidence-based judgement.
- **Indicative content:**
  - Outline of rational economic man and marginal utility theory as the basis for price-based policy and welfare analysis
  - Behavioural critiques: systematic biases (loss aversion, present bias, framing, bounded rationality), heuristics and preference reversals
  - Evidence on magnitude and persistence: small laboratory biases versus large real-world effects, and whether nudges or regulation are justified
  - Policy relevance: where fine-tuning taxes/subsidies via MU works versus where behavioural interventions or paternalistic policies are better
  - Consideration of heterogeneity: some consumers approximate rational agents while others consistently deviate, so policy should be targeted
  - Conclusion: behavioural economics does not make standard theory wholly obsolete but shows limits and suggests a complementary policy toolkit

Question 6

- **B1** three coherent numbered sentences that form a valid analytical chain, for example: 1) MU falls as consumption increases; 2) consumers compare MU per pound across goods, so a price rise lowers MU per pound for that good; 3) consumers substitute away, causing quantity demanded to fall

Question 7

- **B1** behavioural point stated, e.g. 'Present bias means consumers overvalue immediate consumption so intertemporal utility maximisation fails in many real decisions.'
- **B1** methodological point stated, e.g. 'Cardinal measurement of utility is unrealistic, making interpersonal welfare comparisons and MU-based policy prescriptions problematic.'

Question 8

- **B1** axes clearly labelled Price (vertical) and Quantity (horizontal)
- **B1** a clearly drawn downward-sloping demand curve with at least one movement along it labelled and annotated
- **B1** an annotation or arrow linking a rise in price to the corresponding lower quantity demanded with reference to falling marginal utility per unit

Question 9

- **B1** identifies a phenomenon, e.g. 'Addictive goods like cigarettes: consumers continue buying despite falling MU because of addiction and time-inconsistent preferences.'
- **B1** briefly explains why MU fails, e.g. 'MU ignores present bias and habit formation that sustain demand despite price increases.'

Question 10

- **B1** one-sentence definition: substantive evaluation weighs significance, scale or policy consequences, whereas restating a limitation simply notes a weakness without judging its impact
- **B1** gives an example evaluative sentence about MU, e.g. 'Although MU assumes optimisation, experimental evidence suggests biases are small in many market choices, so MU remains a useful first-order policy guide in those markets'
- **B1** shows why this is evaluative: it assesses magnitude and policy implications rather than just stating the existence of bias

Question 11

- **B1** one valid example stated, e.g. 'Savings shortfall evidence where present bias leads to under-saving for retirement, motivating default enrolment nudges'
- **B1** second valid example stated, e.g. 'Behavioural responses to energy bills where framing and inertia reduce switching despite financial benefits, supporting targeted information campaigns or regulation'

Question 12

- **B1** first criterion: 'Include a diagram if it clarifies the mechanism you discuss, for example showing movement along a demand curve or the income effect, and you can annotate it to support your analysis.'
- **B1** second criterion: 'Avoid a diagram if it would be superficial or distract from more important empirical evaluation, or if you cannot label and link it to your argument within the time available.'
- **B1** marks the explicit judgement that the decision depends on clarity and time trade-off

Question 13

- **B1** paragraph makes a balanced conclusion acknowledging behavioural critiques but noting contexts where MU remains useful
- **B1** includes a policy implication, for example recommending a mixed toolkit of price-based instruments and behavioural nudges targeted by evidence