1.29 Exam Technique: Extended Essays on Rational Choice and Utility Theory

AQA 7136 · Calculators not allowed · about 110 minutes · Write-in edition

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer all questions. Full sentences are required for the three extended essay practice questions (Questions 1, 5 and 6). 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 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 1 is 20 marks)

2 Short planning task: For the 20-mark Evaluate question linking behavioural economics to policy (Question 6), 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 2 is 2 marks)

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3 Final technique check: In one short paragraph (three to five sentences), write the concluding judgement you would place at the end of Question 6 that balances behavioural economics and standard marginal utility theory for policy design.

(Total for Question 3 is 2 marks)

4 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. Partial model paragraph: "The rational economic man assumes consumers always maximise utility by choosing the option with the highest marginal utility per unit of expenditure. This simplifies analysis and predicts a downward-sloping demand curve because marginal utility falls as consumption rises. However, experiments show individuals sometimes make inconsistent choices, so the assumption may not always hold."

(Total for Question 4 is 8 marks)

5 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 5 is 20 marks)

6 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 6 is 20 marks)

Mark scheme · 1.29 Exam Technique: Extended Essays on Rational Choice and Utility Theory

Question 1

Level 1 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. **1-5**

Level 2 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. **6-10**

Level 3 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. **11-15**

Level 4 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. **16-20**

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 2

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' **B1**

Question 3

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 **B1**

Question 4

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) **M1**

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 **A1**

identifies a missing analytical point: the paragraph lacks discussion of bounded rationality and cognitive costs which limit optimization **M1**

explains why its absence matters: considering bounded rationality explains mechanistically why the optimisation assumption is unrealistic and offers an alternative behavioural prediction **A1**

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) **M1**

explains why its absence matters: showing when the model remains useful allows a balanced judgement, which is required for higher marks **A1**

identifies a missing methodological counter-argument: no mention of how market-level outcomes may still align with utility theory even if individuals deviate **M1**

explains why its absence matters: this point would develop analysis by showing micro deviations do not automatically invalidate aggregate demand predictions, strengthening evaluation **A1**

Question 5

Level 1 Limited description of total and marginal utility with minimal discussion of income changes, lacking structure and evaluation. **1-5**

Level 2 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. **6-10**

Level 3 Good discussion of both strengths and weaknesses, includes diagram and considers empirical or behavioural caveats, and provides a supported policy implication or application. **11-15**

Level 4 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. **16-20**

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 6

Level 1 Basic description of behavioural critiques or rational choice, lacking development, application to policy, and no clear judgement. **1-5**

Level 2 Accurate description of behavioural biases and some implications for marginal utility theory and policy, but limited analysis and weak conclusion. **6-10**

Level 3 Good analysis contrasting behavioural findings with rational choice predictions, examples of policy implications, and a supported but not fully nuanced judgement. **11-15**

Level 4 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. **16-20**

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