ECO.MIC4 Behavioural Economics: Bounded Rationality and Biases in Decision Making

AQA 7136 · Calculators not allowed · about 60 minutes

Total Marks

Name: ________________________________ Date: ____ / ____ / ______

Answer all questions. Use full sentences for questions worth 4 marks or more. Time guidance: 60 minutes. No calculator is required.

1 Define 'bounded rationality' as used in behavioural economics, naming one implication for consumer decision making in everyday markets such as shopping or saving.

(Total for Question 1 is 1 mark)

2 Define 'bounded self-control' in the context of individual economic behaviour and give one brief example showing present bias in a workplace or household saving decision.

(Total for Question 2 is 2 marks)

3 Define 'anchoring' bias in individual decision making and give a short example from a shopping or pricing context, naming the anchor and the affected judgement.

(Total for Question 3 is 2 marks)

4 Define the 'availability' heuristic and state one way it can distort people's perception of risk in a public context such as travel or health.

(Total for Question 4 is 2 marks)

5 Define 'framing bias' and give a brief example showing how the same information can lead to different choices when framed differently in an advertising or health-message context.

(Total for Question 5 is 2 marks)

6 Define 'social norms' in behavioural economics and give one example of how they might influence individual choices in a neighbourhood or workplace.

(Total for Question 6 is 2 marks)

7 Define the term 'nudge' as used in Thaler and Sunstein's nudge theory and give one short example of a nudge used in a public policy context such as pensions or organ donation.

(Total for Question 7 is 2 marks)

8 Explain what is meant by a 'default option' in choice architecture and give one brief example of how changing the default affects outcomes in pension saving or organ donation rates.

(Total for Question 8 is 2 marks)

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9 Identify the bias or nudge at work in the following scenario and name the single best fit: "A supermarket displays a prominent sign saying 'Most customers choose our eco-friendly bags' above the checkout, and sales of those bags rise noticeably over the next month."

(Total for Question 9 is 2 marks)

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10 State briefly what is meant by 'choice architecture' in the design of decisions and give one concise example of a design choice other than default options that might influence healthy eating choices in a school canteen.

(Total for Question 10 is 2 marks)

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11 Define 'present bias' in one sentence and give one short behavioural implication for saving behaviour.

(Total for Question 11 is 1 mark)

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12 Evaluate the view that nudges are an effective and ethically acceptable alternative to regulation for correcting behavioural failures such as under-saving and unhealthy consumption. In your answer, analyse the strengths and limitations of nudges, consider issues of magnitude, long-term effectiveness, possible unintended consequences and ethical concerns such as manipulation and paternalism, and reach a supported judgement. Where helpful, refer to examples such as automatic pension enrolment, calorie labelling, or default organ donation systems. Draw or describe any diagram you might use to support your analysis.

(Total for Question 12 is 25 marks)

Mark scheme · ECO.MIC4 Behavioural Economics: Bounded Rationality and Biases in Decision Making

Question 1

- **B1** a limited ability to process information and compute optimal choices, so individuals use simplified rules or heuristics when making decisions
- **Answer: Individuals have limited information-processing ability and so use simplified rules or heuristics rather than calculating fully optimal choices.**

Question 2

- **B1** the tendency for individuals to prefer immediate gratification over long-term benefits because self-control is limited
- **B1** example: someone who intends to save for retirement but instead spends a raise on a holiday, showing present bias
- **Answer: Bounded self-control is a limited ability to stick to long-term plans, for example a worker who puts off pension contributions to spend on immediate consumption.**

Question 3

- **B1** anchoring is the bias where initial information or a reference point disproportionately influences subsequent judgements
- **B1** example: a retailer shows a 'was GBP 200, now GBP 120' price so customers view GBP 120 as a good deal because GBP 200 anchors their perception of value
- **Answer: Anchoring is reliance on an initial reference point, for example a 'was/now' price tag (anchor = GBP 200) that makes the sale price (GBP 120) look more attractive.**

Question 4

- **B1** the availability heuristic is judging the likelihood of events by how easily similar examples come to mind
- **B1** it can cause overestimation of rare but memorable risks, e.g. fearing flying after hearing about a plane crash
- **Answer: Availability is judging probability by how easily examples are recalled, which can make rare but vivid events seem more likely, such as overestimating plane-crash risk after media coverage.**

Question 5

- **B1** framing bias is the tendency for decisions to be affected by how information is presented rather than only by the information itself
- **B1** example: describing meat as '90% lean' rather than '10% fat' makes consumers more likely to buy it
- **Answer: Framing bias is when presentation affects choices, for example '90% lean' sounds more attractive than '10% fat' even though both are identical.**

Question 6

- **B1** social norms are shared expectations about acceptable behaviour within a group that influence individuals' decisions
- **B1** example: households are more likely to recycle if neighbours are seen recycling, due to conformity to local norms
- **Answer: Social norms are shared expectations that guide behaviour, for example people are more likely to recycle when they see neighbours doing so.**

Question 7

- **B1** a nudge is a feature of choice architecture that steers people in a predictable way without forbidding options or changing economic incentives significantly
- **B1** example: automatic enrolment in workplace pension schemes (default opt-in) that increases participation while preserving freedom to opt out
- **Answer: A nudge is a change in choice architecture that steers behaviour predictably without restricting options, for example automatic enrolment into workplace pensions as a default option.**

Question 8

- **B1** the default option is the choice applied if an individual does not actively choose otherwise, influencing behaviour via inertia or status quo bias
- **B1** example: making pension enrolment the default increases participation rates, while making organ donation opt-in rather than opt-out reduces donor numbers
- **Answer: The default option is the pre-set choice if no active decision is made, for example automatic pension enrolment raises participation because many stick with the default.**

Question 9

- **B1** identifies 'social norms' as the bias/nudge at work
- **B1** applies it to the scenario by linking the message about most customers' behaviour to conformity, increasing uptake
- **Answer: Social norms; the sign uses information about other customers behaviour to create a conformity effect and increase sales of the eco-friendly bags.**

Question 10

- **B1** choice architecture is the organisation of the context in which people make decisions, including how options are presented and ordered
- **B1** example: placing fruit at eye level and sweets in less prominent positions to nudge pupils towards healthier options
- **Answer: Choice architecture is how decision contexts are organised; for example putting fruit at eye level in a canteen to encourage healthier choices.**

Question 11

- **B1** present bias is the tendency to give stronger weight to immediate rewards than to future benefits, leading to procrastination or under-saving
- **Answer: Present bias is favouring immediate rewards over future benefits, causing people to procrastinate on saving and under-save for retirement.**

Question 12

- **Level 1** (1-5): Basic points about nudges with limited development and little or no evaluation. Answer may be generic, with few or no examples and no clear judgement.
- **Level 2** (6-10): Some developed points on how nudges work and basic strengths or weaknesses. Limited evaluation and few real examples. A partial judgement may be offered but not well supported.
- **Level 3** (11-15): Clear analysis of strengths and limitations of nudges, including examples such as automatic enrolment or defaults, discussion of effectiveness and possible unintended consequences. Ethical issues are considered. A balanced judgement is reached, supported by evidence or logical argument.
- **Level 4** (16-20): Thorough evaluation covering magnitude, persistence, cost-effectiveness, ethical acceptability and issues of transparency and manipulation. Considers when nudges succeed and when regulation is preferable, uses several well-chosen examples, and reaches a well-supported, nuanced conclusion.
- **Level 5** (21-25): Comprehensive and sustained evaluation integrating magnitude, persistence, cost-effectiveness, equity, ethical acceptability, transparency and manipulation throughout. Systematically compares nudges with regulation and hybrid approaches across multiple well-chosen examples, and reaches a fully supported, nuanced judgement on when nudges are the better tool and when they are not.
- **Indicative content:**
  - Explain how nudges work by altering choice architecture, e.g. defaults, framing, salience, ordering, social norms.
  - Strengths: low cost, preserves freedom of choice, quick behavioural impact (e.g. automatic enrolment raising pension participation), scalable and politically palatable.
  - Limitations: magnitude of effect can be small for some behaviours, effects may fade over time without reinforcement, and nudges often rely on context-specific cues so may not transfer across cultures or settings.
  - Long-term effectiveness: discuss evidence that some nudges produce lasting change (e.g. default pensions) while others require complementary policies to sustain behaviour (education, incentives).
  - Unintended consequences: potential for backfire, crowding out of intrinsic motivation, or shifting burdens onto those less able to respond to nudges.
  - Equity issues: nudges may help some groups more than others; vulnerable groups with low engagement may be less affected or may be unfairly influenced.
  - Ethical concerns: paternalism and manipulation, transparency and consent, the distinction between 'libertarian paternalism' and coercive regulation.
  - Compare with regulation: regulation can produce larger, enforceable changes (e.g. banning trans fats) and protect public goods, but is costlier, restricts choice and may be politically harder to enact.
  - Consider hybrid approaches: nudges combined with light regulation or incentives may be most effective, e.g. mandatory calorie labelling plus default healthier menus.
  - Supported judgement: weigh evidence, consider context (e.g. under-saving where defaults work well; public health risks where stronger regulation may be justified), conclude when nudges are appropriate and their limits.