

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

CLASS: IMSc.  
BRANCH: CQEDS

SEMESTER : V  
SESSION : MO/2025

**SUBJECT: ED323: BEHAVIOURAL ECONOMICS**

TIME: 3 Hours

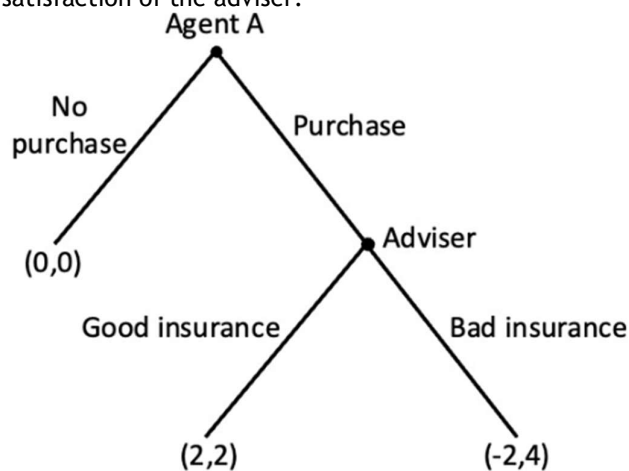
FULL MARKS: 50

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- |  | CO  | BL    |
|--|-----|-------|
| Q.1(a) The paradox of Buridan's ass runs as follows: "An ass that is equally hungry and thirsty is placed halfway between a pile of hay and a bucket of water. The ass cannot decide between the hay and water, so dies of dehydration and starvation."<br>(i) What axioms of choice are relevant to this fable? Are any axioms violated? Explain.<br>(ii) Elmer claims he has no preference between apples and oranges and is genuinely indifferent between the two. Is this stance consistent with the completeness axiom? Explain why or why not. | [4] | CO1 2 |
| Q.1(b) How legal outcomes are shaped by cognitive biases? Explain with an appropriate example.   | [6] | CO1 6 |
| Q.2 Consider the following gamble:<br><div style="text-align: center;">(0.5, \$500; 0.5, -\$500)</div>   |     |       |
| This gamble provides a 50% chance of winning \$550 and a 50% chance of losing \$500.   |     |       |
| Q.2(a) Would a risk neutral agent (who maximizes expected value) be willing to pay \$20 to play this gamble? What is the most they would be willing to pay to play?  | [5] | CO2 3 |
| Q.2(b) Would a risk averse expected utility maximiser with wealth \$1000 and utility function $U(x) = (x)^{1/2}$ be willing to pay \$20 to play this gamble? What is the most they would be willing to pay to play?  | [5] | CO2 4 |
| Q.3(a) Explain the concept of heuristics in relation to the bias-variance trade-off.   | [5] | CO3 4 |
| Q.3(b) Explain the concept of heuristics in relation to overconfidence.  | [5] | CO3 4 |
| Q.4 Agent A is going to their financial adviser to buy some life insurance. The adviser can sell them insurance that does not cover heart attacks but for which the adviser receives a huge sales commission (bad insurance). Or the adviser can sell Agent A comprehensive insurance for which their sales commission is lower (good insurance).  |     |       |

The payoffs (x,y) for each decision are indicated in the game tree below, with x being the satisfaction of Agent A and y being the satisfaction of the adviser.



PTO

- Q.4(a) Assume the adviser only cares about the payoffs indicated. [4] CO4 3  
(i) What would the adviser do if Agent A chooses to purchase?  
(ii) What would Agent A do, anticipating the choice of the adviser?
- Q.4(b) Suppose Agent A has a reputation for seeking revenge and would experience satisfaction of +4 from complaining to the regulator (in addition to the effort cost of -3) as reciprocation for the action of the adviser. How would this change the outcome of the game? Provide the game tree with the payoffs. [6] CO4 6
- Q.5(a) Briefly explain the ABCDE's of choice architecture. [6] CO5 5  
Q.5(b) Briefly explain the three stages of decision-making process. [4] CO5 4

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