BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: IMSC **SEMESTER : V**
BRANCH: CQEDS **SESSION : MO/2025**

SUBJECT: ED323 BEHAVIOURAL ECONOMICS

TIME: 02 HOURS **FULL MARKS: 25**

INSTRUCTIONS:
1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
***4*. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates**

			CO	BL
Q.1	Define loss aversion and explain its implications for investor behaviour during stock market downturns.	[5]	1	1
Q.2	Using the example of opt-in vs. opt-out organ donation systems, explain how default effects influence decision-making.	[5]	1	2
Q.3	A decision-maker has the following options: • Option A: A sure gain of ₹1,000 • Option B: A 50% chance to gain ₹2,500 and a 50% chance to gain nothing According to Expected Utility Theory (EUT), the rational choice would be based on expected value. According to Prospect Theory, however, assume: Value function: $V(x) = x^{1/2}$ for gains **Probability weighting: $W(p) = p^{0.7}$**			
Q.3(a)	Compute the expected value of Option A and Option B under EUT.	[2]	2	3
Q.3(b)	Compute the prospect theory value of Option A and Option B using the given functions.	[3]	2	3
Q.4	Explain why the value function in prospect theory is concave for gains and convex for losses. Give an example of how this influences consumer decision-making.	[5]	2	5
Q.5	Suppose an agent has the following reference-dependent value function: $$v(x) = \begin{cases} x^{3/4}, & x \geq 0 \\ -2(-x)^{3/4}, & x < 0 \end{cases}$$ Where x is the realised outcome relative to the reference point. Assume that the agent's reference point is the status quo and the agent is offered the gamble A: ($100, 0.6; -$100, o.4)			
Q.5(a)	Calculate the utility from this gamble.	[3]	2	4
Q.5(b)	Will they want to play this gamble? Why?	[2]	2	4

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