# Mahindra University Hyderabad

**École Centrale School of Engineering**
**End-semester Regular Examination**

**Program: B. Tech.** **Branch: ALL** **Year: III** **Semester: II**
**Subject: Decision Making (HS3018)**

**Date: 31/05/2025** **Start Time: 2 PM**
**Time Duration: 3 Hours** **Max. Marks: 100**

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***Instructions:***

1) Answer **all questions in Section A.**
2) In **Section B,** answer **any 6** of the 8 questions given.
3) In **Section C,** answer **any 3** of the 5 questions given.
4) Draw neat, labelled diagrams/flow-charts wherever they strengthen your answer.
5) Cite real-world illustrations wherever appropriate.
6) All answers are to be written in the **answer booklet only**

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## SECTION A

**Multiple Choice Questions (1 × 25 = 25 Marks)**

1) Satisficing in Herbert Simon's terms means choosing an option that …
   a) maximises utility b) meets minimum acceptability c) postpones commitment d) eliminates all risk
2) In the Clarify → Collect → Consider → Compare → Choose → Communicate cycle, which step involves *analysing data points across options*?
   a) Collect b) Compare c) Choose d) Communicate
3) A decision on annual bonus distribution taken by top management is classified as a(n) …
   a) routine b) adaptive c) policy d) programmed
4) The design phase of Simon's model primarily includes …
   a) monitoring feedback b) structuring the problem and generating alternatives c) selecting an outcome d) broadcasting the result
5) Which human limitation listed by Harrison (1995) hampers extensive information search?
   a) Propensity for risk b) Closed belief systems c) Cognitive saturation d) Short 4-item memory span
6) Selective attention is best described as a …
   a) memory enhancer b) sensory substitution c) cognitive filter d) bias eliminator
7) Echoic memory is associated with the sense of …
   a) vision b) hearing c) smell d) touch

8) A manager favouring defined processes and expectations scores high on the _____ end of the style spectrum.
a) ambiguity b) structure c) people/social d) intuition

9) Within the visual system, the ventral stream answers the question …
a) *where*? b) *how fast*? c) *what*? d) *why*?

10) The basal ganglia contribute to decision-making mainly by …
a) storing declarative memories b) selecting context-appropriate actions c) regulating heart rate d) visual object recognition

11) Anchoring bias occurs when decision-makers …
a) adjust probabilities for rare events b) ignore first impressions c) rely excessively on an initial value d) prefer consensus

12) Over-weighting *very recent* stock news illustrates the …
a) recency bias b) confirmation bias c) clustering illusion d) placebo effect

13) Zero-risk bias pushes people to …
a) diversify portfolios b) remove every trace of danger c) exploit small uncertainties d) ignore sunk costs

14) The heart signal in the head–heart–gut triad chiefly reflects …
a) logical analysis b) emotional valence c) past knowledge d) sensory cues

15) In a river-crossing puzzle, an operator corresponds to …
a) a legal state transition b) the goal check c) the initial state d) a heuristic value

16) Choice-supportive bias leads individuals to …
a) downgrade their own selections b) justify past choices despite flaws c) imitate group opinion d) see illusory patterns

17) The dorsal stream chiefly computes …
a) object identity b) spatial localisation c) memory retrieval d) emotional tone

18) *"Planes crash more than cars because I saw it on the news"* exemplifies the …
a) availability heuristic b) survivorship bias c) outcome bias d) blind-spot bias

19) In Simon's model, feedback monitoring belongs to a fourth phase sometimes called …
a) revision b) review c) implementation d) recommitment

20) MBTI T–F relates most closely to which decision style dichotomy in Module 04?
a) structure vs. ambiguity b) task/technical vs. people/social c) head vs. heart d) intuition vs. sensation

21) Sensory → short-term → long-term represents which core process?
a) Retrieval b) Encoding c) Chunking d) Selection

22) A pilot modifying a flight path due to storm data is classified as a(n) …
a) routine decision b) adaptive decision c) programmed decision d) personal decision

23) Pro-innovation bias often leads to …
a) under-estimating new tech b) over-valuing novelty c) delaying upgrades d) total risk aversion

24) Culture & beliefs shape choices by providing …
a) object identities b) social norms & values c) dopamine signals d) visual feedback loops

25) The placebo effect hinges on the power of …
a) sensory adaptation b) expectation c) selective perception d) habituation

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## SECTION B

**Write any 6 short answers for 5 marks each. Answer in 80-100 words (6 × 5 = 30 Marks).**

1) Distinguish between strategic (basic) and routine decisions with one corporate example each.
2) Explain chunking and show how it speeds decision processes in emergency medicine.
3) Describe the availability heuristic and propose two managerial counter-measures.
4) Using the Six C's, outline how a student might choose an affordable online course.
5) Discuss the contribution of the hippocampus to decision quality via memory consolidation.
6) Define top-down attention and analyse its double-edged role in air traffic control.
7) You are on the student activities committee. Your club has ₹1,000 to spend (per person) and wants to engage 500 students. You must choose between: A one-day "Wellness Fair" in the student centre, or A week-long series of "Mindfulness Micro-Workshops" across campus. Make the decision using Simon's PS model.
8) Show how head–heart–gut signals could conflict when accepting a high-risk, high-pay job.

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## SECTION C

**Write any 3 long answers for 15 marks each. Answer in 250-300 words (3 × 15 = 45 Marks).**

1) Develop a debiasing playbook for project teams targeting anchoring, confirmation and survivorship biases.
2) Map the perceive–process–decide–act neural loop onto *surgical decision-making*, citing key brain areas and bias hot-spots.
3) Compare satisficing and optimising strategies under deep uncertainty, with evidence from new-product launches.
4) Design a Decision Support System that embeds Simon's intelligence–design–choice stages for municipal water planning.
5) Evaluate how memory systems (sensory, short-term, long-term) interact with selective attention to steer consumer click-through behaviour.