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PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 08-10-2025

Time: 09.30am to 11.00am

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| School: SOIS | Program: BCA | |
| Course Code : CSA1701 | Course Name: Artificial Intelligence | |
| Semester: III | Max Marks: 50 | Weightage:25% |

| CO - Levels | CO1 | CO2 | CO3 | CO4 | CO5 |
|-------------|-----|-----|-----|-----|-----|
| Marks | 26 | 24 | 0 | 0 | 0 |

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

5Q x 2M=10M

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|---|--|---------|----|-----|
| 1 | Define the term “Agent” in Artificial Intelligence. | 2 Marks | L1 | CO1 |
| 2 | Differentiate between Narrow AI and General AI. | 2 Marks | L2 | CO1 |
| 3 | List two key foundations of Artificial Intelligence. | 2 Marks | L1 | CO1 |
| 4 | Define Knowledge Representation in AI. | 2 Marks | L1 | CO2 |
| 5 | What are the different types of knowledge? | 2 Marks | L2 | CO2 |

Part B

Answer the Questions.

Total Marks 40M

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|----|----|---|----------|----|------|
| 6. | a. | Explain the different types of agents in Artificial Intelligence with suitable examples (Simple Reflex, Model-Based, Goal-Based, Utility-Based, Learning Agents). | 10 Marks | L2 | CO 1 |
| Or | | | | | |
| 7. | a. | Discuss the significance of Machine Learning, Deep Learning, | 10 Marks | L2 | CO |

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| | | NLP, and Computer Vision in Artificial Intelligence. | | | 1 |
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| 8. | a. | Describe the history of AI from the 1950s to the present. Highlight key milestones such as the Dartmouth Conference, Perceptron, AI Winter, Expert Systems, and modern AI resurgence. | 10 Marks | L2 | CO 1 |
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Or

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| 9. | a. | Write a detailed note on applications of AI in Healthcare, Business, and Autonomous Systems. | 10 Marks | L2 | CO 1 |
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| 10. | a. | Compare and contrast Propositional Logic and First-Order Logic (FOL). Highlight their syntax, semantics, expressive power, limitations, and applications with suitable examples | 10 Marks | L2 | CO 2 |
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Or

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| 11. | a. | Discuss Knowledge-Based Systems (KBS). Explain their structure (knowledge base, inference engine, user interface), advantages, limitations, and real-life applications such as Expert Systems. | 10 Marks | L2 | CO 2 |
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| 12. | a. | Discuss different types of knowledge representation techniques (Logical, Semantic Networks, Frames, Production Rules) with examples. | 10 Marks | L2 | CO 2 |
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Or

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| 13. | a. | Compare Declarative Knowledge and Procedural Knowledge. How are both used in Knowledge-Based Systems?. | 10 Marks | L2 | CO 2 |
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