

INDIRA UNIVERSITY, PUNE

SCHOOL OF INFORMATION TECHNOLOGY-B.SC (AIML)

Term End Examination (2025 Pattern) December – 2025 - Semester – I

Subject Name: - Fundamentals of Artificial Intelligence
Subject Code: 25AML103T

Max. Marks: 25
Time: 1:30 Hrs.

Instructions

- All Questions are Compulsory.
- Figures to the right indicate full marks

CO #	Cognitive Ability	Course Outcome
CO1	Remember	Describe the core concepts, foundations, history, and current state of Artificial Intelligence.
CO2	Understand	Differentiate between symbolic and sub-symbolic approaches and identify various types of AI including reactive, limited memory, theory of mind, and self-aware systems
CO3	Apply	Apply problem-solving techniques using search strategies to solve AI-based scenarios.

Q1.	Attempt any 5 out of 7. (1 mark each) a) List any two areas on which Foundations of AI are built b) Define fully observable environment c) Define Actuator d) Define path cost. e) Who proposed the Turing Test? f) Define Bias g) With reference to a learning agent, what does reward mean?	(5 Marks)	CO1
Q2.	Attempt any 2 out of 4. (5 marks each) a) Compare Symbolic and subsymbolic AI with reference to strength, weakness and applications b) Write a note on PEAS c) Explain the difference between a path cost and step cost d) Explain the five pillars of AI Ethics	(10 Marks)	CO2
Q.3. Q.3.A	Attempt ALL. (5 marks each) i. Consider the following agent scenarios: an online chess game with a timer. Apply your understanding of static and dynamic environments to classify each scenario and justify your classification. ii. Explain how Model based reflex agent is different from a Simple reflex agent.	(10 Marks)	CO3
OR			

Q.3 B	Attempt the question a) Consider a self-driving car designed to transport passengers safely and efficiently in urban environments. Apply the PEAS framework to this agent by identifying and listing the Performance Measures, Environment, Actuators, and Sensors for the system.	(10 marks)
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