

Reg. No.:



Name:

University of Kerala

U9293

Second Semester FYUGP Degree Examination, April 2025

Multi-Disciplinary course

ELECTRONICS

UK2MDCELE100 - AI for Beginners

Academic Level: 100-199

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	State one advantage of Breadth-first search	RE	3
2	List the types of knowledge which needs to be represented in AI systems	RE	2
3	Summarize the difference between Supervised and Unsupervised Learning.	UN	4
4	List any four applications of AI.	UN	1
5	Explain search tree	UN	3
6	Convert to first order logic : "Some cats are black"	UN	2

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Compare and contrast the advantage and disadvantages of Breadth-first search in relation to another uninformed search algorithm	UN	3
8	Explain the role of reinforcement in Reinforcement Learning	UN	4
9	Illustrate uninformed search algorithm	AP	3
10	What is Machine Learning used for?	AP	4

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Employ Breadth-first search using diagram	AP	3, 1

Qn No.	Question	CL	CO
	OR B) Illustrate with neat figure and explain simple reflex agent and model-based agent		
12	A) Explain the three types of Machine Learning techniques with suitable examples. Highlight their differences and significance in real-world applications. OR B) Differentiate uninformed search and informed search in search algorithms	AN	4, 3
13	A) Describe how first-order logic enhance the expressiveness of propositional logic? OR B) Describe the search algorithm terminologies	EV	2, 3
14	A) Elaborate the importance of data preprocessing in Machine Learning and how it influences the model's performance OR B) Discuss the use of artificial intelligence in various field.	CR	4, 1