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School of Computing Science and Engineering

Bachelor of Science in Computer Science

Mid Term Examination - Mar 2024

Duration : 90 Minutes

Max Marks : 50

Sem VI - E1UP605B - Artificial Intelligence and Machine Learning

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) Explain the advantages and disadvantages of Logical representation. K2 (2)
- 2) List the key components of an AI agent . K1 (3)
- 3) What is PEAS? Explain. Write down the PEAS for the Vacuum Cleaner. K2 (4)
- 4) Explain the performance of A* algorithm when the heuristic function either underestimates or overestimates the value of states. K2 (6)
- 5) Illustrate the Minimax search algorithm in short. K3 (8)
- 6) What are the important features required for a machine to pass the Turing test? Illustrate in your own words. K3 (9)
- 7) Compare the efficiency of BFS, DFS and A* Search algorithms using essential properties. K4 (8)

- 8) Point out the following sentences in symbol logic: K4 (12)
 - (1) All students like good teachers.
 - (2) All that glitters is not gold.
 - (3) Fruits and vegetables are delicious.
 - (4) God help those who help themselves.

OR

Distinguish between heuristics and algorithms with examples. Mention few applications of heuristics and algorithm as well. K4 (12)