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DII1345

Artificial Intelligence
(New) (1220)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any two** subquestions from each question.
5. Draw diagram whenever necessary.
6. Assume Suitable Data.
7. Figures to the right indicate full marks.

1. a) In Artificial Intelligence, justify why one should check, whether the solution of problem is state or path ? 10
- b) Write detail note on : 10
 - i) Turing Test
 - ii) AI Representations
- c) Write the algorithm for Breadth First Search and Depth First Search also compare them. 10
2. a) Discuss various issues in knowledge representations. 10
- b) What is predicate logic, also represent following facts using predicate logic. 10
 - i) All Pompeions were Romans.
 - ii) All Romans were either loyal to caser or hated him.
 - iii) Everyone is loyal to some one.
 - iv) People only try to assassinate rulers they are not loyal to
- c) Write detail note on fuzzy logic. 10

3. a) What is block world also write various actions and predicates in it. 10
- b) What is STRIPS also write various STRIPS-Style operators for block world. 10
- c) Discuss following terms related to robotics. 10
- i) Perception
- ii) Vision
- iii) Navigation
- iv) Visibility Graph
- v) Manipulation
4. a) Define the architectures of Neural Networks also compare various architecture of Neural Networks. 10
- b) Justify the role of learning in Artificial Intelligence. 10
- c) Justify the role of semantic analysis in Natural language processing. 10
5. a) Draw and explain any one case study of expert system. 10
- b) Write algorithm for alpha beta pruning in MINIMAX search procedure. 10
- c) Demonstrate the working of MINIMAX Search for following game tree. 10


