Code: 9F00405c

MCA IV Semester Supplementary Examinations November/December 2017
ARTIFICIAL INTELLIGENCE
(For students admitted in 2012, 2013, 2014 & 2015 only)

Time: 3 hours   Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks
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1 (a) What is the goal of AI? Explain DFS technique in detail with algorithm.
   (b) What is uninformed search? Prove that Breadth – first search is a special case of uniform – cost search.

2 (a) Explain Hill climbing search strategy.
   (b) Discuss stimulated annealing searching.

3 (a) Explain with algorithm and example alpha beta pruning.
   (b) Explain minimax algorithm. What is the time and space complexity of minimax algorithm?

4 (a) What are the elements of propositional logic? Write and explain generic knowledge based agents.
   (b) Explain in detail the connectives used in propositional logic.

5 (a) Explain planning with state space search.
   (b) Explain partial order planning with an example.

6 (a) Draw a decision tree for the problem of deciding whether to move forward at a road intersection, given that the light has just turned green.
   (b) We never test the same attribute twice along one path in a decision tree? Why?

7 (a) What is expert system? List the advantages and limitations of expert systems.
   (b) Discuss artificial neural network systems.

8 (a) Explain the stages in the development of an expert system.
   (b) Discuss expert system life cycle.

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