

**Code: 9A05605****R09**

B.Tech III Year II Semester (R09) Supplementary Examinations December/January 2015/2016

**ARTIFICIAL INTELLIGENCE**

(Computer Science and Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Discuss the problem of an AI technique with help of an example.  
(b) Give the heuristic function for Tic-Tac-Toe problem.  
(c) Describe Turing test.
- 2 (a) Explain simulated annealing search algorithm.  
(b) Write MIN-CONFLICTS algorithm for solving CSPs by local search.
- 3 (a) Make a comparison between declarative and procedural approaches.  
(b) List the standard logical equivalences of propositional logic
- 4 (a) Explain the backward chaining algorithm for FOL.  
(b) Discuss theorem prover and its designing.
- 5 (a) Explain briefly about truth maintenance systems.  
(b) What are the advantages of truth maintenance systems?
- 6 (a) Explain the differences between conditional and unconditional probabilities with examples.  
(b) Explain the differences between joint and full joint probability distributions.
- 7 Explain the following:  
(a) Version space approach.  
(b) Generalization.  
(c) Specialization.
- 8 Explain the following:  
(a) Fuzzy sets.  
(b) Network.  
(c)  $\alpha$ - cut threshold.

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