

R09**Code: 9A05605**

B.Tech IV Year I Semester (R09) Regular & Supplementary Examinations December 2015

ARTIFICIAL INTELLIGENCE

(Common to MCT & ECC)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 How to describe a problem formally? Explain using Tic-Tac-Toe problem.
- 2 (a) Write the algorithm for recursive best first search. Explain the various strategies in this search.
(b) Write a note on admissible heuristic.
- 3 Discuss the following rules for propositional logic:
(a) Modus ponens.
(b) And-Elimination.
(c) Resolution.
- 4 (a) Explain the structure of a completeness proof for resolution.
(b) Discuss straight forward forward-chaining algorithm for FOL.
- 5 Explain the following:
(a) Reasoning systems for categories.
(b) Reasoning with default information.
- 6 (a) Explain about degree of belief and probability theory.
(b) Explain the concept of independence and show that the three forms of independence are equivalent.
- 7 Write the differences between the following:
(a) Supervised and unsupervised learning.
(b) Explanation based and relevance based learning
- 8 Name different fuzzy set operations. Explain them.
