

Code: 9A05605**R09****B.Tech III Year II Semester (R09) Supplementary Examinations May/June 2016****ARTIFICIAL INTELLIGENCE****(Computer Science and Engineering)****Time: 3 hours****Max Marks: 70**

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain a search tree and a search group for water- jug problem.
(b) Write about production system characteristics.
- 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 (a) Discuss proof by refutation with example.
(b) Explain deduction theorem.
(c) What is meant by refutation completeness?
- 4 (a) Explain the ideas underlying modern logical inference systems.
(b) Describe the syntax of first order logic.
- 5 Explain in detail about:
(a) Circumscription.
(b) Default logic.
- 6 Write short notes on the following:
(a) Marginalization.
(b) Normalization.
(c) Conditioning.
- 7 (a) Write the differences between supervised and unsupervised learning.
(b) Explain computational learning theory.
- 8 (a) Explain sectional view of a fuzzy room cooler.
(b) Explain the categories of neural network structure.
