

R09

Code: 9A05605

B.Tech III Year I Semester (R09) Supplementary Examinations, May 2013

ARTIFICIAL INTELLIGENCE

(Computer Science & Systems Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Distinguish between problem tree and problem graph.
(b) Discuss characteristics of production system.
(c) Discuss how AI technique can be used to solve tic-tac-tie problem.
- 2 (a) What are the advantages of Heuristic search?
(b) What are the optimization problems?
(c) In what kind of problem space would depth first search be better than a breadth first search?
- 3 (a) What is the significance of knowledge representation? Compare and contrast database and knowledge base.
(b) Compare forward vs backward reasoning.
- 4 (a) What is first-order logic? Explain syntax and semantics of first-order logic.
(b) Explain the unification algorithm with an example.
- 5 (a) Discuss about "Ontological Engineering".
(b) Explain about "Internet Shopping World".
- 6 (a) What is uncertain knowledge? How knowledge is acting under uncertainty?
(b) Explain "Axioms of probability".
- 7 Briefly explain the following:
(a) Inductive learning.
(b) Learning decision trees.
(c) Ensemble learning.
- 8 What is "Statistical Learning"? Explain neural networks with suitable example.
