Code :RR310502

$\boxed{\textbf{RR}}$

III B.Tech I Semester(RR) Supplementary Examinations, May 2011
ARTIFICIAL INTELLIGENCE
(Computer Science & Engineering)

Time: 3 hours
Max Marks: 80

Answer any FIVE questions
All questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) What is Artificial Intelligence? Mention some of the applications that fall within the scope of AI.
   (b) Explain the state space representation of water jug problem.

2. Discuss in detail about the A* algorithm. Using a suitable example.

3. (a) What are the four properties desirable in any knowledge representation? Explain them in brief.
   (b) Taking the organization of your college as an example, represent it in
       i. relational and
       ii. inheritable forms. Compare their merits.

4. (a) Define certainty factor? What are the components of certainty factor?
   (b) Explain Bayesian method of reasoning.

5. (a) Explain with an example, how a ATMS could be used in medical diagnosis?
   (b) Write short notes on:
       i. Nondependency-Directed backtracking
       ii. Minimalist reasoning.

6. (a) Compare the representations of the sentence. Dravid Produced a classy innings with his bat ? in case grammar and conceptual dependency.
   (b) What is Alpha-Beta Pruning?

7. (a) What is top-down parsing and how it contrasts with bottom-up parsing.
   (b) Write a possible bottom up parsing of the sentence "The Sun rises in the East".

8. Write short notes on any two of the following:

   (a) Epistemology
   (b) Induction method of learning
   (c) Deduction method of learning
   (d) Decision trees in learning.

⋆ ⋆ ⋆ ⋆ ⋆