ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : MAY / JUNE 2010

REGULATIONS : 2007

FIFTH SEMESTER : CSE

070230049 - ARTIFICIAL INTELLIGENCE

TIME : 3 Hours Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. Write a PEAS description for a wumpus world?
2. What is agent program and agent architecture?
3. Discuss on software agent
4. State the difference between utility function and performance measure?
5. Give note on greedy best first search?
6. What is A* search?
7. Write a note on SMA* search?
8. List the types of memory bounded heuristic search?
9. What are diagnostic rules?
10. Discuss on model based reasoning systems
11. What is upper ontology?
12. Write a note on reification?
13. List the categories of neural network structures?
14. What is memoization?
15. List the factors involved in analysis of efficency gains from EBL.
16. State the design issues that affect the learning element.
17. Define bottom up parsing by a search problem.
18. Why grammars are to be augmented?
19. What are the various types of ambiguity?
20. What is disambiguation?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. a) Describe the various properties of the task environment. 6

    b) Write PEAS description for at least four agent types. 6

22. a) Distinguish an agent of AI and non AI program. 6

    b) Explain tree search algorithm in detail. 6

23. a) Explain Hill climbing in detail. 6

    b) Describe A* search in detail. 6

24. Write in detail the online search agent working using depth first exploration.

25. Explain forward chaining and backward chaining in detail for a first order definite clauses

26. Elaborate upon the ontolgy for situation calculus.

27. a) Elaborate upon inductive logic programming 6

    b) Explain the nonparametric learning methods 6

28. a) Write short notes on the sub problems of discourse understanding. 6

    b) Explain in detail segmentation 6

*****THE END*****