ANNA UNIVERSITY COIMBATORE B.E. / B.TECH. DEGREE EXAMINATIONS : DECEMBER 2009 REGULATIONS – 2007 FIFTH SEMESTER : COMPUTER SCIENCE & ENGINEERING 070230049– ARTIFICIAL INTELLIGENCE

TIME : 3 Hours

PART - A

State Products

(20 x 2 = 40 MARKS)

Max.Marks: 100

ANSWER ALL QUESTIONS

- 1. Explain about Rational Agents.
- 2. Give the PEAS description of Part Picking robot
- 3. What is meant by Conflict Directed by backtracking.
- Write Short notes on bidirectional search.
- 5. Difference between Informed and Uninformed search strategies
- 6. What are the Problems faced by Hill climbing search.
- 7. What is MCV and LCV?
- 8. Write Examples of processes and discrete events.
- Give example for Constant symbols, Predicate symbols and Function Symbols.
- 10. Explain about Generalized Modus Ponens rule.
- 11. What is Logic Programming?
- 12. Define Ontological Engineering.
- 13. What are all the types of learning.
- 14. Explain about Ensemble Learning.
- 15. Difference between Active and Passive reinforcement learning.
- 16. Explain the Bayes Rule with Example.
- 17. What are the Steps in Communication Process.

- 18. Define Parsing.
- 19. Explain about Grammar Induction.
- 20. What are the types of Translation.

PART - B

(5 x 12 = 60 MARKS)

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ANSWER ANY FIVE QUESTIONS

- 21. Explain any 4 uninformed search strategies.
- 22. Alpha- beta pruning based minimax techniques for game playing with example.
- 23. Write A* Search Algorithm and explain.
- 24. Explain in detail about :
 - a Forward Chaining b Backward Chaining
- 25. Explain in detail with Example Knowledge Engineering in FOL
- 26. Explain in detail about Decision tree based learning techniques.
- 27. Structure and working of
 - a Single layer feed forward neural networks
 - b Multilayer feed forward neural networks
- 28. a Briefly explain about Information Retrieval
 - b Briefly explain about Machine Translation