

30/9/13

26

**UNIVERSITY DEPARTMENTS**

**ANNA UNIVERSITY, CHENNAI-25**

**B.E/ B.TECH DEGREE EXAMINATION, SEPT/OCT 2013**

**IT9023 Artificial Intelligence**

**R2008**

**Branch : IT  
Time : 3 Hours**

**Semester VI  
Marks:100**

**Answer ALL Questions**

**Part- A (10X2 = 20 marks)**

1. Define 'Intelligent Agent'.
2. State the Breadth First Search algorithm.
3. What is greedy search?
4. Define backtracking. Give an example.
5. Compare propositional logic and predicate logic.
6. Write the Baye's rule. State its uses.
7. Define 'rote learning'.
8. What is ensemble learning?
9. Define Morphological analysis.
10. Write the uses of robotics.

**Part – B (5 X 16 = 80)**

11. (i) Explain the architecture of the four types intelligent agents with neat diagrams.(10)  
(ii) Write PEAS for English Tutor and Vaccum Cleaner (6)
12. (a)(i) State and explain the A\* Algorithm (8)  
(ii) How will you solve the constraint satisfaction problem for cryptanalysis? (8)  
Or  
(b)(i) Explain the Minimax Algorithm. (8)  
(ii) Define Alpha-Beta pruning and explain it. (8)
13. (a)(i) Explain the Wumpus world problem. Represent it using propositional logic.(8)  
(ii) State and explain the resolution algorithm for predicate logic. (8)  
Or  
(b)(i) Explain the Ontological Engineering process. (8)  
(ii) Explain about non monotonic reasoning. (8)

14. (a)(i) Explain inductive learning. (8)  
(ii) State and explain the decision tree algorithm. (8)

Or

- (b)(i) What is explanation based learning. Explain with an example. (8)  
(ii) Explain about Active Reinforcement. (8)

15. (a) Write the phases of Natural Language Processing and explain them. (16)

Or

- (b)(i) List the steps of image processing and explain them (8)  
(ii) Explain Robot planning with an example action plan. (8)