**Register No:**

**Date: 10-04-2017**

**St. Joseph’s College (Autonomous), Bangalore**

**II Semester Examination, April 2017**

**M.Sc Computer Science**

**CS 8115 : Artificial Intelligence**

**Time 2.5 Hrs Max Marks 70**

 **This paper contains 1 printed pages and 1 part**

**PART-A**

**Answer any SEVEN questions 10 x7 = 70**

1. a) What is artificial intelligence? (3)

 b) Describe the four categories by which AI is classified with suitable

 examples (7)

1. Explain the algorithm with examples.
2. MiniMax algorithm (5)
3. Alpha Beta pruning (5)
4. What is A\* search? Explain various stages of A\* search with an example.
5. a) What are production rules? Give examples. (3)

 b) Explain state space representation of problem solving with a suitable example.(7)

5. a) What is problem solving using reduction? (3)

 b) Explain AO\* search procedure with an example. (7)

1. Define the syntactic elements of first-Order logic. Illustrate the use of first-order logic to represent knowledge.
2. Explain with an example.

 (a) Forward chaining (5)

 (b) Backward chaining (5)

8. a) Define natural language generation (3)

 b) Explain the architecture of Truth Maintenance System with a neat diagram. (7)

9. Explain resolution in FOPL with suitable examples.

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