



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE**

**THIRD SEMESTER – APRIL 2017**

**CS 3950- ARTIFICIAL INTELLIGENCE**

Date: 26-04-2017  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART – A**

**ANSWER ALL THE QUESTIONS: 10 X 2 = 20**

1. What is rational agent?
2. What are goal based agents?
3. Define heuristic function.
4. What are linear constraints?
5. What is unification?
6. What are assertions in First Order Logic?
7. What is Q-learning?
8. Which are the issues affects the design of learning algorithms?
9. What is formal language?
10. What is “speech act”?

**PART – B**

**ANSWER ALL THE QUESTIONS : 5 X 8 = 40**

11. a) Write down the properties of task environment.  
(OR)  
b) Explain Depth-First search algorithm with example.
12. a) Explain hill climbing search algorithm.  
(OR)  
b) Explain *minimax* search procedure.
13. a) Construct a model for First Order Logic with a diagram?  
(OR)  
b) How will you convert a propositional logic into clause form?
14. a) Explain decision trees with example.  
(OR)  
b) What are exploration problem in active learning? Compare exploration with exploitation.
15. a) Explain generative capacity for grammatical formalism.  
(OR)  
b) Explain grammar induction process

**PART – C**

**ANSWER ANY TWO: 2 X 20 = 40**

16. i) Explain any four uninformed search techniques with examples.(10)  
ii) Explain the algorithm to find solution for constraint satisfaction with example.
17. i) Explain ontological engineering in detail.(10)  
ii) Explain decision tree and its characteristics.(10)
18. i) Explain information retrieval and information extraction.(10)  
ii) Explain resolution with example (10)

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