



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION - COMPUTER SCIENCE

THIRD SEMESTER – NOVEMBER 2013

CS 3950 - ARTIFICIAL INTELLIGENCE

Date : 12/11/2013
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART – A

ANSWER ALL THE QUESTIONS:

10 X 2 = 20

1. Write down the performance measures for evaluation a problem solving algorithm.
2. Define heuristic function.
3. What is genetic algorithm?
4. What are liner constraints?
5. What is ontological engineering?
6. Define Conjunctive Normal Form.
7. What are assertions in First Order Logic?
8. Which are the issues affects the design of learning algorithms?
9. What is candidate elimination algorithm?
10. What is “speech act”?

PART – B

ANSWER ALL THE QUESTIONS :

5 X 8 = 40

11. a) How agent interacts with environment? Explain with block diagram.
(OR)
b) Explain water jug problem, its rules and states.
12. a) Explain hill climbing search algorithm.
(OR)
b) Explain crypt arithmetic problems and specify the steps to solve it.
13. a) Construct a model for First Order Logic with a diagram?
(OR)
b) Explain unification algorithm.
14. a) Explain decision trees with example.
(OR)
b) Explain passive reinforce learning.
15. a) Explain generative capacity for grammatical formalism.
(OR)
b) Explain ambiguity in languages.

PART – C

ANSWER ANY TWO:

2 X 20 = 40

16. i) Explain any four uninformed search techniques with examples.(10)
ii) Explain *minimax* search procedure with alpha beta cut off. (10)
17. i) Explain the syntax and semantics of First Order Logic.(10)
ii) Explain inductive logic programming.(10)
18. i) Explain EM algorithm in detail. How it is used in learning of hidden variables?
(10)
ii) Explain ontological engineering in detail.
(10)
