



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

THIRD SEMESTER – NOVEMBER 2016

CS 3950 - ARTIFICIAL INTELLIGENCE

Date: 09-11-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

ANSWER ALL THE QUESTIONS:

10 X 2 = 20

1. What is an agent?
2. Define heuristic function.
3. What is simulated annealing?
4. What are nonlinear constraints?
5. What is ontological engineering?
6. Define Conjunctive Normal Form.
7. What do you mean by cross validation?
8. What is version space algorithm?
9. What is Chart parsing?
10. What are recursively enumerable grammars?

PART – B

ANSWER ALL THE QUESTIONS :

5 X 8 = 40

11. a) Explain utility based agents with a block diagram.
(OR)
b) Explain water jug problem and its rules and states.
12. a) Explain A* algorithm as an informal search procedure.
(OR)
b) Explain crypt arithmetic problems and specify the steps to solve it.
13. a) Explain knowledge engineering process in First Order Logic.
(OR)
b) How will you convert a propositional logic into clause form?
14. a) Explain neural networks in learning process with an example.
(OR)
b) Explain passive reinforce learning.
15. a) Describe the fundamentals of a language.
(OR)
b) Explain pragmatic interpretation of languages.

PART – C

ANSWER ANY TWO:

2 X 20 = 40

16. i) Explain the various kinds of agent programs in intelligent systems. (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 explanation based learning (10)
18. i) Explain bottom-up parsing and top-down parsing with example. (10)
ii) Explain knowledge engineering process. (10)
