LOYOLA COLLEGE (AUTONOMOUS), CHENNAI - 600 034

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

THIRD SEMESTER – **NOVEMBER 2018**

Dept. No.

CS 3950 – ARTIFICIAL INTELLIGENCE

Date: 01-11-2018 Time: 09:00-12:00

SECTION-A

Answer All Questions

- 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 referential transparency?
- 7. What do you meant by cross validation?
- 8. What is inductive logic programming?
- 9. What is chart parsing?

Answer All Ouestions

10. What are context free grammars?

SECTION – B

(5X8=40)

11.a) Explain utility based agents with a block diagram

(OR)

b) Write down the properties of environments which influence the agents.

- 12. a) Explain constraint satisfaction technique with an example (OR)
 - b) Explain A* algorithm as an informal search procedure
- 13.a) Explain knowledge engineering process in First Order Logic (OR)
 - b) Compare propositional logic with First Order Logic
- 14.a) What is explanation based learning? Give an example (OR)
 - b) Explain neural networks in learning process with an example



Max.: 100 Marks

ION-A (10X2=20) 15.a) Explain the pragmatic interpretation of languages. (OR)

b) Chomsky's four classes of grammatical formalisms

SECTION – C (2X20=40)

Answer any TWO Questions

16.i) Explain the various kinds of agent programs in intelligent systems

- ii) Explain mini-max search procedure with alpha beta cut off.
- 17. i) Explain forward chaining and backward chaining in inference.

ii) Explain generalization in reinforcement learning.

18.i) Explain semantic interpretation of grammars

ii) Explain the Hill climbing algorithm and its merits and demerits.

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