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Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Computer Science

CSC 3C 04—ARTIFICIAL INTELLIGENCE

(2010-2013 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

*Answer all questions.
Each question carries 1 weightage.*

1. Define AI.
2. What do you mean by Heuristic search ?
3. List the key concepts in AI problem descriptions.
4. List the different approaches in knowledge representation.
5. Represent the facts in the following sentences in logic (WFF) :
 John likes all kinds of food.
 Apples are food.
 Anything anyone eats and is not killed by is food.
 Bill eats peanuts and is alive.
6. Give suitable examples for procedural and declarative knowledge.
7. Explain the use of cut in prolog programming.
8. Explain how list are declared in Prolog. Give suitable example.
9. What do you mean by parsing ?
10. What is a semantic net ?
11. What is an expert system shell ?
12. List the steps in expert system life cycle.

(12 x 1 = 12 weightage)

Part B

*Answer any six questions.
Each question carries 2 weightage.*

13. Discuss in detail about any *two* applications of AI.
14. With suitable example, explain production systems.

Turn over

15. With suitable example, explain representation of instance and relationships.
16. Discuss the major issues in knowledge representation.
17. Explain facts, rules and queries in Prolog with suitable examples.
18. Explain backtracking in prolog.
19. Write note on NLP.
20. Discuss the characteristics of expert systems.
21. Discuss the important features of DENDRAL.

(6 x 2 = 12 weightage)

Part C

*Answer any **three** questions.
Each question carries 4 weightage.*

22. What do you mean by state space search ? Explain Best First Search.
23. Discuss resolution and natural deduction with suitable examples.
24. Explain forward and backward chaining with suitable examples.
25. Discuss implementation of DFS.
26. Write notes on (i) Augmented transition net ; (ii) Case grammar.
27. Write note on knowledge engineering.

(3 x 4 = 12 weightage)