

17P269

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Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, MAY 2018

(CUCSS - PG)

(Computer Science)

CC17P CSS2 C04 - COMPUTATIONAL INTELLIGENCE

(2017 Admissions: Regular)

Time: Three Hours

Maximum: 36 Weightage

PART A

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

1. Define explanation based learning.
2. State the objectives of Artificial Intelligence.
3. What is expert system shell?
4. What do you mean by means-ends analysis?
5. Write a note on Logic Programming.
6. Explain the task domains of AI.
7. Define Analogy.
8. Bring out the need of heuristic function.
9. What is Conceptual Dependency?
10. Differentiate forward and backward reasoning.
11. Explain the role of production systems in AI problems.
12. What is DENDRAL?

(12 x 1 = 12 Weightage)

PART B

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

13. Explain AO* algorithm.
14. Explain Planning system and its components.
15. Write a note on back propagation and genetic algorithm.
16. Explain the logic for Nonmonotonic reasoning.
17. Explain State Space Search with example.
18. Discuss the characteristics and life cycle of an expert system.
19. Explain Constraint Satisfaction algorithm with example.
20. Explain in detail about Resolution in predicate calculus.
21. What do you mean by Best-first search? Explain.

(6 x 2 = 12 Weightage)

PART C

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

22. What are the issues in knowledge representation? Explain.
23. Explain simple and steepest ascent hill climbing.
24. Briefly explain the concept of
 - a) Machine Learning
 - b) Hopfield Network
25. Explain how Semantic nets and Frames are used for knowledge representation?
26. With appropriate examples explain the working of Breadth First Search and Depth First Search in detail.
27. Discuss alpha-beta pruning in the context of Minimax search procedure.

(3 x 4 = 12 Weightage)
