20P267 (Pages: 1) Name……..….

Reg. No….……..

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2021

(CUCSS - PG)

(Regular/Supplementary/Improvement)

CC19P CSS2 C09 - COMPUTATIONAL INTELLIGENCE

(Computer Science)

(2019 Admission onwards)

Time: Three Hours Maximum: 30 Weightage

PART A

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

1. Define Production characteristics.
2. What are inference rules?
3. Write algorithm for means ends analysis.
4. What is a heuristic function?
5. Distinguish between ISA and instance relationship.
6. Draw a state space graph and explain the representation.
7. Explain hopfield network.

(4 × 2 = 8 Weightage)

PART B

Answer any ***four*** questions. Each question carries 3 weightage.

8. Explain state space search with example.
9. Explain constraint satisfaction for crypt arithmetic problem.
10. What are different knowledge acquisition approaches?
11. Explain natural deduction.
12. What is iterative deepening?
13. Define expert system life cycle.
14. Explain learning in neural network.

(4 × 3 = 12 Weightage)

PART C

Answer any ***two*** questions. Each question carries 5 weightage.

15. Explain the best first approach using AO* algorithm. Illustrate with example Tree.
16. Write in detail the resolution proof for predicate calculus expression. Write the procedure for converting to clause form.
17. Why the game playing is best suitable for heuristic algorithms. Explain the min max and alpha beta procedure for game playing.
18. Explain slot and filler structure.

(2 × 5 = 10 Weightage)

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