

C 23324

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Name.....

Reg. No.....

**SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2022**

(CBCSS)

Computer Science

CSS 2C 09—COMPUTATIONAL INTELLIGENCES

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend **all** questions in each section.*
2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

Section A

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

1. What do you mean by production system ?
2. How is Knowledge different from information ?
3. What do you mean by Heuristics search ?
4. List the challenges of Knowledge representation ?
5. What is Hopfield Network in Neural Networks ?
6. What do you mean by Knowledge engineering ?
7. Write any *two* applications of depth first search.

(4 × 2 = 8 weightage)

Turn over

Section B

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

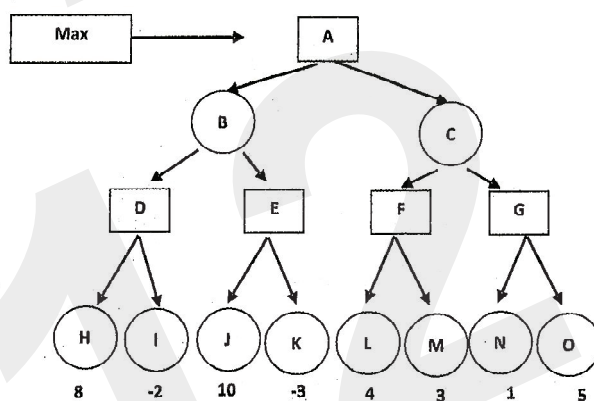
8. What are the two different reasoning strategies for state space search ?
9. What do you mean by backward and forward reasoning ?
10. Is it possible to relate the scripts and frames ?
11. Give a short note on the components of a typical planning system in AI.
12. What is the significance of Back propagation in Neural Networks.
13. Write the steps in genetic algorithm.
14. Write the algorithm for breadth first search.

(4 × 3 = 12 weightage)

Section C

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

15. Explain the hill-climbing strategy of problem-solving with an example.
16. How is Knowledge different from information ? Explain the different types of Knowledge and examples for each.
17. Find the search tree of the below given search tree after applying alpha-beta pruning algorithm. Mark where you wanted to apply the alpha and beta cuts.



18. What is Back propagation in Neural Networks and explain the working.

(2 × 5 = 10 weightage)