

**SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2023**  
**(Regular/Improvement/Supplementary)**

**COMPUTER SCIENCE**  
**FCSS2C09-COMPUTATIONAL INTELLIGENCE**

Time: 3 Hours

Maximum Weightage: 30

**Section A: Short answer questions. Answer any *four* questions. Each carries 2 weightage.**

1. Explain two task domain of AI.
2. What is heuristic search?
3. Explain with an example mapping between facts and representation.
4. Give two examples of Expert systems.
5. Write short note on learning in neural networks.
6. What is non-monotonic reasoning?
7. Elaborate on forward reasoning.

**(4 × 2 = 8 weightage)**

**Section B: Short essay questions. Answer any *four* questions. Each carries 3 weightage.**

8. Discuss the applications of AI?
9. Explain unification algorithm.
10. Describe genetic programming.
11. Write a note on formal learning theory.
12. Explain Expert System life cycle.
13. Discuss production system with their control strategies.
14. Explain knowledge representation planning.

**(4 × 3 = 12 weightage)**

**Section C: Essay questions. Answer any *two* questions. Each carries 5 weightage.**

15. What is planning system? Explain its components.
16. Explain Hill Climbing algorithm.
17. Write notes on: i) Resolution in preposition logic; ii) State space search.
18. Explain min-max search procedure in game playing.

**(2 × 5 = 10 weightage)**