

Roll.No.

25PCSETMI01

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

M.Sc.Computer Science - END SEMESTER EXAMINATIONS - NOVEMBER 2025  
SEMESTER - I

**25PCSETMI01 - Modern Artificial Intelligence**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

Answer any **SIX** questions ( $6 \times 5 = 30$  Marks)

1. Compare simple reflex agents and model-based reflex agents.
2. Define Artificial Intelligence and explain its major goals and applications.
3. Classify Breadth-First Search and Depth-First Search.
4. Describe the concept of adversarial search in AI.
5. Explain the syntax and semantics of propositional logic.
6. Prepare the architecture of a knowledge-based agent.
7. Show the role of Natural Language Processing (NLP) in AI.
8. Discuss the working of the 8-puzzle problem.

### Section C

I - Answer any **TWO** questions ( $2 \times 10 = 20$  Marks)

9. Sketch the structure and components of an intelligent agent.
10. Explain how Alpha-Beta pruning improves the efficiency of minimax search.
11. Examine with examples how logical inference is performed in knowledge-based systems.
12. Discuss the architecture and working of feed forward neural networks and recurrent neural networks.

II - Compulsory question ( $1 \times 10 = 10$  Marks)

13. Explain about the Gen-AI function & Ethics of AI.

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