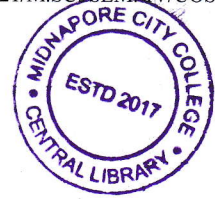


PG (CBCS)
M.SC. Semester- IV Examination, 2022
COMPUTER SCIENCE
PAPER: COS 401
(ARTIFICIAL INTELLIGENCE)



Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

GROUP-A

1. Answer any **FOUR** of the following questions: 2×4=8
- a) Write some application of Artificial Intelligence.
 - b) What do you mean by reinforcement learning?
 - c) Explain the use of Agents in AI.
 - d) What is Time and space complexity?
 - e) What is Adversarial Search?
 - f) Define State-space planning algorithm.
 - g) What is tensor flow and how it is used in AI?
 - h) What is chatbot?

GROUP-B

2. Answer any **FOUR** of the following questions: 4×4=16
- a) Describe some real-world applications of AI.
 - b) What is knowledge representation in AI. What are the requirement of good knowledge representation system.
 - c) What are the advantage and disadvantage of AI.
 - d) Describe Model-based reflex agent.
 - e) What is a heuristic function and where is it used?
 - f) Describe AI knowledge cycle.
 - g) Define Sensor and Effectors in AI.

GROUP-C

3. Answer any **TWO** of the following questions: 8×2=16
- a) Describe different type of AI. What do you mean by Uninformed Search Algorithms in AI. 6+2
 - b) Describe different Future impact of AI in different sectors.
 - c) What is Reasoning in AI? Describe different types of Reasoning in AI. 2+6
 - d) Write A* Algorithm and describe each steps with an example.
