PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2025
(Fifth Semester)

Branch – **SOFTWARE SYSTEMS (Five years Integrated)**

ARTIFICIAL INTELLIGENCE

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. Which of the given language is not commonly used for AI?
   (i) LISP (ii) PROLOG
   (iii) Python (iv) Perl

2. A problem in a search space is defined by one of these state.
   (i) Initial state (ii) Last state
   (iii) Intermediate state (iv) All of the mentioned

3. Wumpus World is a classic problem, best example of _____
   (i) Single player Game (ii) Two player Game
   (iii) Reasoning with Knowledge (iv) Knowledge based Game

4. Uncertainty arises in the world because the agent's sensors gives_____
   (i) Full & Global information (ii) Partial & Global Information
   (iii) Partial & local Information (iv) Full & local information

5. Zero sum game has to be a _____ game.
   (i) Single player (ii) Two player
   (iii) Multiplayer (iv) Three player

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a. Discuss about intelligent Agent.
OR
b. Prepare the notes on Agent based system.

7 a. Explain the short notes on Blind Search.
OR
b. Discuss about Alpha Beta Pruning.

8 a. What are the different between Forward & Backward chaining.
OR
b. Discuss about Propositional Logic.

Cont...

9 a. Write notes on the concept of Uncertainty.

OR

b. Prepare the short notes on Temporal model.

10 a. Discuss about Utility functions.

OR

b. Prepare the short notes on Value iterations.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a. Explain in detailed about the History of AI.

OR

b. Predict in the detail concept of Agent based systems.

12 a. Elucidate the concept of Meta Heuristic.

OR

b. Explain in detailed about Minimax algorithms.

13 a. Write notes on Knowledge based agents.

OR

b. Compare the concepts Propositional & First order logics.

14 a. Elucidate the Exact inference in reasoning networks.

OR

b. Predict the notes on Inference in Temporal Models.

15 a. Analyze the concept of Basics of Utility theory.

OR

b. Explain in detailed about Decision with multiple theory.

Z-Z-Z END