

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc (SS) DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch – SOFTWARE SYSTEMS (Five Year 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. Who is known as the -Father of AI"?
(i) Fisher Ada (ii) Alan Turing
(iii) John McCarthy (iv) Allen Newell
2. The process of removing detail from a given state representation is called _____.
(i) Extraction (ii) Abstraction
(iii) Information Retrieval (iv) Mining of data
3. Which is not a property of representation of knowledge?
(i) Representational Verification (ii) Representational Adequacy
(iii) Inferential Adequacy (iv) Inferential Efficiency
4. A Hybrid Bayesian network contains _____.
(i) Discrete & continuous variables (ii) Only Discrete variables
(iii) Only Discontinuous variable (iv) Both Discrete & Discontinuous variable
5. Which agent deals with the happy and unhappy state?
(i) Learning Agent (ii) Model-based agent
(iii) Goal-based Agent (iv) Utility-based agent

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Write any three key components of AI.
OR
b. What are the different between Robotic and Software agent?
- 7 a. Explain the Heuristic Search.
OR
b. Discuss about Beta Pruning.
- 8 a. Illustrate the Propositional Logic.
OR
b. Prepare the note on Inference.
- 9 a. Write notes on probabilistic reasoning.
OR
b. Explain the concept of Dynamic Bayesian networks.
- 10 a. Discuss about Policy iteration.
OR
b. Prepare the short notes on Game theory.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a. Briefly explain about the Foundation of AI.
OR
b. Explain the concept of Agent based systems.
- 12 a. Elucidate the Problem solving agent.
OR
b. Explain in detailed about Genetic Algorithms.
- 13 a. Write in detailed notes on Knowledge based agent.
OR
b. Analyze the Hidden Markov Models.
- 14 a. Elucidate the concept on Semantic Bayesian Networks.
OR
b. Explain the concept of Inference in Temporal Models.
- 15 a. Analyze the concept of Sequential decision problems.
OR
b. Explain in detailed about Value & Policy iterations.

Z-Z-Z

END