

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2023
(Second Semester)

Branch – COMPUTER SCIENCE

SOFTWARE AGENTS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 What do you mean by software agent?
 - (i) A software agent is a piece of software that acts for a user or other program in a relationship with the agency
 - (ii) A software agent is a type of agent which makes all the decisions, leaving all other agents to act as remote slaves
 - (iii) A software agent is a type of agent that work together to solve a problem that cannot be solved alone.
 - (iv) A software agent is an employee of a Software company
- 2 Which of the following is not an agent communication language?
 - (i) FIPA
 - (ii) KQML
 - (iii) HTML
 - (iv) KIF
- 3 Agent's structure can be viewed as ?
 - (i) Architecture
 - (ii) Agent Program
 - (iii) Architecture + Agent Program
 - (iv) None of the Above
- 4 Which of the following is an extension of the semantic network?
 - (i) Expert Systems
 - (ii) Rule Based Expert Systems
 - (iii) Decision Tree Based networks
 - (iv) Partitioned Networks
- 5 Agent's behavior can be ideally explained by which of the following?
 - (i) Perception sequence
 - (ii) Agent function
 - (iii) Sensors and Actuators
 - (iv) The environment in which the agent is performing

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Justify Agent as an Ascription.
OR
b. How to overcome User Interface problems? Explain.
- 7 a. Agents reduce work and Information load – Justify.
OR
b. State the advantages of KQML.

Cont...

- 8 a. Explain Deductive Reasoning Agents. OR
b. Explain Practical reasoning Agents.
- 9 a. Discuss Knowledge based development. OR
b. Explain Knowledge Elicitation.
- 10 a. Illustrate the architecture of Discipline Shell. OR
b. How to verify and validate agents? Explain.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Highlight the importance of Software Agents. OR
b. Illustrate Agent enabled System Architecture.
- 12 a. Explain Agent Communication and Collaboration. OR
b. Discuss Agent based Framework.
- 13 a. Explain Reactive and Hybrid agents. OR
b. Discuss on Multi Agent Decision making.
- 14 a. Elucidate General concepts and rules of Semantic Networks. OR
b. Describe the stages in Knowledge Acquisition.
- 15 a. Explain methodology for building Intelligents. OR
b. Explain Agent interaction during Rule refinement process.

Z-Z-Z

END