

21U5116

(Pages: 2)

Name:

Reg. No:

FIFTH SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

CC21U SDC5 AI17 – ARTIFICIAL INTELLIGENCE

(Information Technology)

(2021 Admission - Regular)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Define "perception" as a characteristic of intelligent agents.
2. What is a chatbot?
3. What is the primary function of a search engine?
4. Explain the concept of "optimization" in problem-solving.
5. Name one uninformed search algorithm.
6. What is the significance of the "neighborhood function" in local search?
7. What is the significance of resolution in automated theorem proving?
8. Explain the concept of "default logic."
9. Name one commonly used notation for representing a neural network layer.
10. Name one key component of the Belief-Desire-Intention (BDI) architecture.
11. Define "trust" in the context of multi-agent systems.
12. Name one commonly used input/output function in LISP.

(Ceiling: 20 Marks)

PART B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

13. Explain the future of artificial intelligence.
14. Differentiate between narrow AI and general AI.
15. Describe the main characteristics of a natural language processing (NLP) system.
16. Discuss the challenges of escaping local optima in optimization problems.
17. Compare and contrast forward chaining and backward chaining as reasoning methods.
18. What are some advantages of using ontologies in knowledge representation and reasoning?
19. Describe the key components of an agent architecture, such as perception, reasoning, and action.

(Ceiling: 30 Marks)

PART C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Explain the characteristics of intelligent agents.
21. Explore the programming paradigm of LISP and its historical significance in the field of artificial intelligence.

(1 × 10 = 10 Marks)
