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(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)

SUBJECT CODE **21UIT5E2**

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS): POLLACHI

END-OF-SEMESTER EXAMINATIONS: NOVEMBER 2023

B.Sc INFORMATION TECHNOLOGY

MAXIMUM MARKS: 70

SEMESTER: V

TIME: 3 HOURS

PART - III

21UIT5E2 – ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS. (K1)

1.What is the full form of “AI”?

- a) Artificially Intelligent b) Artificial Intelligence
- c) Artificially Intelligence d) Advanced Intelligence

2. A* Algorithm is based on _____

- a) Breadth-First-Search b) Depth-First –Search
- c) Best-First-Search d) Hill climbing

3.What are the approaches of knowledge representation?

- a) Inheritable knowledge b) Inferential knowledge
- c) Procedural knowledge d) all of the above

4.Which is also called single inference rule?

- a) Reference b) Resolution
- c) Reform d) none of the mentioned

5.The component of an Expert system is_____.

- a) Knowledge Base b) Inference Engine
- c) User Interface d) All of the above

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6.Recall the Depth-first-Search.

7. Define Steepest-Ascent Hill climbing.

8. What is Fact?

9. Explain Predicate Logic

10. List the Forward Versus Backward Reasoning.

(CONTD 2)

SECTION – B**(5 X 4 = 20 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K3)**

11. a) Discuss the Tic-Tac-Toe Problem in detail.
(OR)
b) Illustrate the Breadth – First Search method.
12. a) Describe about Generate – and - Test.
(OR)
b) Discover the Mean-Ends Analysis.
13. a) Explain about Representation and Mapping.
(OR)
b) Sketch the Frame Problem.
14. a)Examine the Simple Facts in Logic.
(OR)
b) Discover the Basis of Resolution.
15. a) Compute the Forward – Chaining Rule System.
(OR)
b)Discuss about Control knowledge.

SECTION - C**(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS****(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS.****(K4/K5)**

16. Explain about Problem Characteristics.
17. Illustrate the Production System
18. Explain A* Algorithm in detail.
19. Show the Issues in Knowledge Representation.
20. Examine the Computable Function and Predicates.
21. Discuss the Matching in detail.

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