Reg. No ..... Name **23U627**

B. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023

SEMESTER 6 : COMPUTER APPLICATION

COURSE : **19U6CRCAP12 : ARTIFICIAL INTELLIGENCE (EL)**

(For Regular - 2020 Admission and Supplementary - 2019 Admission)

Time : Three Hours Max. Marks: 75

PART A

Answer All (1 mark each)

1. List out any three examples of propositional logic.
2. What is scene representation?
3. Knowledge is categorized into two types. Which are they?
4. What is meant by the learning process in AI?
5. ---------- is used for identifying objects or regions of interest in an image in AI.
6. Which is the technique for proving theorems in predicate calculus?
7. List out two examples of swarm intelligence algorithm.
8. List out any two real-world examples of classification model.
9. In reinforced learning, the ---------- interacts with the environment and explores it.
10. Write an example for particle swarm optimization.

(1 x 10 = 10)

PART B

Answer any 8 (2 marks each)

11. Define strategic knowledge in AI.
12. Why are game playing problems considered as AI problems?
13. Where is predicate logic used?
14. List the types of RNNs.
15. Define soft computing.
16. Define CSP in AI.
17. What is the use of genetic algorithm?
18. Define predicate with arguments.
19. List out the types of trihedral figures labeled in the Waltz algorithm.
20. Define data preparation.

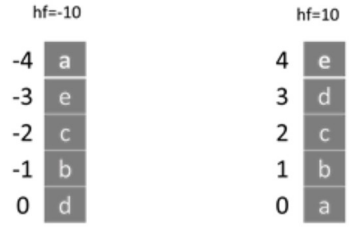
(2 x 8 = 16)

PART C

Answer any 5 (5 marks each)

21. Explain about the advantages of frame representation.
22. How does the reinforcement learning work?
23. Define declarative knowledge in AI with an example.

24. Resolve the blocks-world problem given below using goal-stack planning



25. Define the basic structure of Genetic algorithm.
26. Define the algorithm of the Best-First Search.
27. Explain the steps for training a model.

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Discuss in detail about the operations performed by the robotic arm and predicates needed to perform an operation in a goal-stack problem.
29. Explain in detail about the categories of knowledge in AI.
30. Explain the basic structure of Genetic algorithm, its advantages and limitations.
31. Explain RNN and its applications with diagram.

(12 x 2 = 24)