18CSC305J – Artificial Intelligence
Model Practical Exam DAY3

Batch -1 (Reg. No 32-48)

1. Write a program to implement the unification technique for any set of facts (min 4)
2. Identify a real-world problem to demonstrate the uncertainty in it.
3. Write a program to demonstrate the rule-based inference system for real world problem
4. Write a program to demonstrate the knowledge representation technique for real world problem
5. Demonstrate the blocks world program
6. Identify a real-world problem to demonstrate the uncertainty in it using any of the Data Mining Techniques.
7. We have a total of 300 bananas. The destination is 100kms Only 1 mode of transport. Camel can carry a maximum of 100 banana at a time. Camel eats a banana every km it travels. One complete trip means output zero. Write a program to find the optimal solution for the camel-banana problem.
8. There were 200 fish in an aquarium, 99% of which were red. How many red fish must be removed to make the percentage of red fish to 98%? Write a program to find the number of red fish that can be removed from the aquarium.
9. Identify anyone of the greedy algorithmic techniques for colouring the edges and vertices of two complex graphs such that no two adjacent edges or vertices share the same color. Note each graph should have the edge and vertex coloring done.
10. Write a program to solve the puzzle **If "EAT + THAT = APPLE", what is the sum of A+P+P+L+E?** satisfying the letter value constraints
11. Write a program to solve the puzzle **POINT + ZERO = ENERGY, then E + N + E + R + G + Y = ?,** satisfying the letter value constraints
12. Demonstrate the difference between the Breadth & Depth First Search Techniques for any real-world problem
13. Identify a real world problem to demonstrate the difference between the Best First Search & A* Techniques
14. Implement the min-max algorithm to optimally solve the Tic Tac Toe problem
15. Write a program to implement the steps for the resolution technique for the set of facts

    a) John likes all kind of food.
    b) Apple and vegetable are food
    c) Anything anyone eats and not killed is food.
    d) Anil eats peanuts and still alive
    e) Harry eats everything that Anil eats.

    Prove by resolution that: John likes peanuts.

18CSC305J – Artificial Intelligence
Model Practical Exam DAY3

Batch -2 (Reg. No 66-82)

1. Write a program to implement the unification technique for any set of facts (min 4)
2. Identify a real-world problem to demonstrate the uncertainty in it.
3. Write a program to demonstrate the rule-based inference system for real world problem
4. Write a program to demonstrate the knowledge representation technique for real world problem
5. Demonstrate the blocks world program
6. Demonstrate the difference between the Breadth & Depth First Search Techniques for any real-world problem
7. Identify a real world problem to demonstrate the difference between the Best First Search & A* Techniques
8. Implement the min-max algorithm to optimally solve the Tic Tac Toe problem
9. Identify a real-world problem to demonstrate the uncertainty in it using any of the Data Mining Techniques.
10. Write a program to implement the steps for the resolution technique for the set of facts

    f) John likes all kind of food.
    g) Apple and vegetable are food
    h) Anything anyone eats and not killed is food.
    i) Anil eats peanuts and still alive
    j) Harry eats everything that Anil eats.

    Prove by resolution that: John likes peanuts.

11. We have a total of 300 bananas. The destination is 100kms Only 1 mode of transport. Camel can carry a maximum of 100 banana at a time. Camel eats a banana every km it travels. One complete trip means output zero. Write a program to find the optimal solution for the camel-banana problem.
12. There were 200 fish in an aquarium, 99% of which were red. How many red fish must be removed to make the percentage of red fish to 98%? Write a program to find the number of red fish that can be removed from the aquarium.
13. Identify anyone of the greedy algorithmic techniques for colouring the edges and vertices of two complex graphs such that no two adjacent edges or vertices share the same color. Note each graph should have the edge and vertex coloring done.
14. Write a program to solve the puzzle **If "EAT + THAT = APPLE", what is the sum of A+P+P+L+E?** satisfying the letter value constraints
15. Write a program to solve the puzzle **POINT + ZERO = ENERGY, then E + N + E + R + G + Y = ?,** satisfying the letter value constraints