II-Mid Semester Exam May- 2025
Branch: CSE&AIML Semester: IV
AL/CS-402ADA

Time 1:30 Hrs

Max. Marks 20

Note: All questions are compulsory and have internal choice.

Ques.1: Explain Reliability design with Example?(CO3 7 Marks)

OR

Find an optimal solution for following 0/1 Knapsack problem using dynamic programming: Number of objects n=4, Knapsack Capacity M=5, Weights $(W_1, W_2, W_3, W_4) = (2, 3, 4, 5)$ and Profits (P_1, P_2, P_3, P_4) (3, 4, 5, 6).

Ques.2: Explain the 8 queen's problem and apply the backtracking to solve the 8 queen's problem.?(CO4 7Marks)

OR

Write the control abstraction for LC-Search. Explain how Traveling Salesperson problem is solved using LCBB.

Ques. 3 Discuss the differences between BFS and DFS.?

(CO5 6 Marks)

OR

Explain NP hard and NP complete problem?