SHRI VISHWAKARMA SKILL UNIVERSITY, DUDHOLA, PALWAL
B. Tech. Computer Science & Engg. (AI/ML)- First Semester
SECOND SESSIONAL TEST (SESSION: 2022-2023)

Subject Code: ETCS 207
Sem.: First
Subject Name: Design and Analysis of Algorithms
Time: 60 minutes   Maximum Marks: 20

SECTION A
Q1. Short answers type   5 × 2 = 10

Sl.	Question Description	Unit	Difficulty	RBT Level	Co Mapped
Q 1	Write algorithm of Binary Search	1	Medium	Understanding,	CO1
Q2	Describe complete graph.	1	Easy	Remembering	CO1
Q3	Explain Merge sort with its complexity	1	Medium	Understanding	CO1
Q4	Distinguish between Algorithm and Psuedocode.	2	difficult	Remembering	CO1
Q5	Describe job scheduling with deadlines?	2	Medium	Understanding	CO2

SECTION B
Q2. Long answers type (understanding, applying, analysing, evaluating) (2 questions are compulsory)   5 × 2 = 10

Sl.	Question Description	Unit	Level	RBT Level	CO Mapped
Q 2.1	What is a Minimum Cost Spanning tree? Explain Kruskal's Minimum cost spanning tree algorithm with suitable example	1	Medium	Applying	CO3/CO4
Q 2.2	State the Greedy Knapsack Problem. Find an optimal solution to the knapsack instance n=4 objects and the capacity of knapsack m=15. profits (10, 5, 7, 11) and weight are (3, 4, 5, 6).	2	Medium	Understanding, Applying	CO2/CO3/CO4