Register No. :..... Name:.....

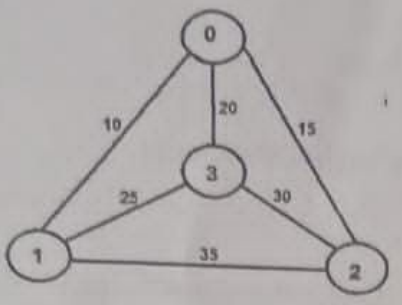
	Adhiyamaan College of Engineering (Autonomous)		
	Question Paper	CSE	
B. E. COMPUTER SCIENCE ENGINEERING		Branch: DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
Semester: II-CSE-C		Academic Year: 2024-25	
Course Code: 422CIT02	L-T-P Credits: 3-0-0-3	Course Name: DESIGN AND ANALYSIS OF ALGORITHM	
Time: 1:30 Hrs.	CIA-I	Date: 4.2.2025	Maximum Mark: 50

No.	Question	Mark	CO	BL
	PART-A			
1	Mention the characteristics of an algorithm.	2.0	CO1	2
2	Define Time and Space complixity.Give an example.	2.0	CO1	1
3	List out the types of notations.	2.0	CO1	2
4	Write the algorithm for string matching problem using brute force techniques.	2.0	CO2	2
5	Write the time complixity of knapsack problem.	2.0	CO2	1
	PART-B			
6	Illustrate in detail about asymptotic notationa and basic efficiency classes of algorithm.	8.0	CO1	2
7	Explain the process of designing an algorithm.	8.0	CO1	1
8	Solve the recurrence relation using substitution method: $T(n) = T(n-1) + 1$ and $T(1) = \theta(1)$.	8.0	CO1	3
9	Consider the assignment problem	8.0	CO2	3

	job 1	job 2	job 3	job 4
person 1	9	2	7	8
person 2	6	4	3	7
person 3	5	8	1	8
person 4	7	6	9	4

use exhaustive search technique to find the solution.

10	Find all the solution to the TSP (cities and distance) by using Exhaustive search.	8.0	CO2	3



Question Paper Level: 112/50=2.24

CO: Course Outcomes

- CO1: Analyze the efficiency of recursive and non-recursive algorithms mathematically
- CO2: Analyze the efficiency of brute force, divide and conquer, decrease and conquer, Transform and conquer algorithmic techniques

BL: Blooms Taxonomy Level

6-Creating, 5-Evaluating, 4-Analyzing, 3-Applying, 2-Understanding, 1-Remembering,

Prepared by (Faculty in charge)	Verified by (DQAC member)	Approved by (HOD)
LAVANYA A 29/1/25	29/1/25	31/1/25

19K