Vivekanand Education Society's Institute of Technology
Department of Computer Engineering
Academic Year 2024-25

Name of the Course: **Design and Analysis of Algorithms NCMPCL41**

Year/Sem/Class: **S.E.(Comp)- IV sem-D7A/B/C**

Faculty Incharge: **Mrs.Lifna C S, Mrs.Vidya Zope, Mrs.Yugchhaya Galphat**

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Assignment - II

Date of Preparation :4/04/25 **Date of Submission : 15/04/25**

No	Questions	Course Outcome
1	**Solve the given knapsack problem with dynamic knapsack** Selection of n=4 items, capacity of knapsack M=8 Item i: 1, 2, 3, 4 — Value v_i: 15, 10, 9, 5 — Weight w_i: 1, 5, 3, 4	CO4
2	solve the sum of subset problem using backtracking w={1,3,4,5}, m=8 find all possible subsets of 'w' that sum 'm'	CO5
3	Explain Knuth Morris Pratt algorithm with a proper example?	CO5
4	Explain all pair shortest path with suitable example	CO5
5	Find the Longest Common Subsequence for P=(100101101101) and Q=(0110)	CO4
6	Find the shortest path for given multistage graph using backward approach	CO4

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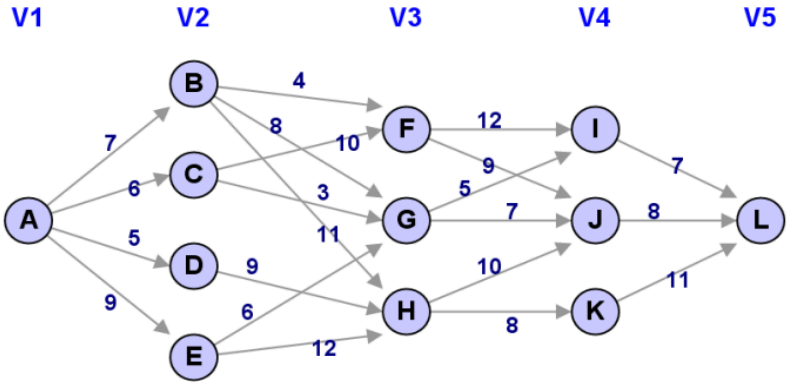
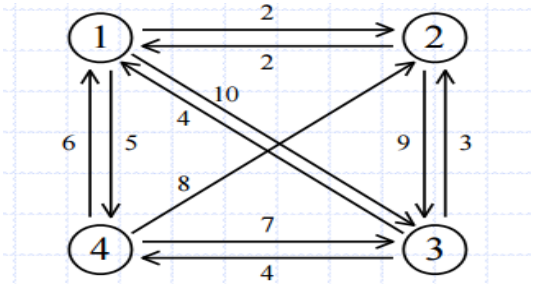
		
7	Explain 15-puzzle problem with proper Example.	CO5
8	Solve the Traveling Salesman Problem (TSP) using Branch and Bound Method? 	CO5