

Course Name: **Data Structures**, Course Code: **201DSL204**

Day and Date: **Monday, 23.01.2023**

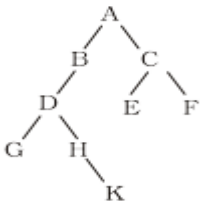
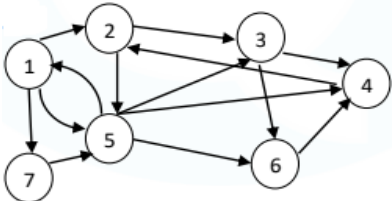
Time: **10.00 am to 12.00 pm**

Max. Marks- **50**

Seat No:

Instructions:

- Question No. 1&2 is compulsory.
- Figure to the right indicate full marks.

BT	CO's	Q. No.		Marks
		Q.1	All Questions are compulsory	20
	CO2	a	Define linear & Binary Search in detail with example.	6M
2	CO2	b	Apply radix sort on following DATA: 802, 630, 20, 745, 52, 300, 612, 932, 78, 187 and sort array.	7 M
1,2	CO3	c	Evaluate the following Postfix expression: 6,2,3,+, -,9,8,2,+,+,*,2,^,3,+	7 M
		Q.2	All Questions are compulsory	10
1	CO3	a	Explain the term Linked List with its terminologies.	4
1,2	CO3	b	The following list of names is assigned (in order) to a liner array INFO: Mary, June, Barbara, Paula, Diana, Audrey, Karen, Nancy, Ruth, Eileen, Sandra, Helen. That is, INFO [1] = Mary, INFO [2] =June, ... , INFO [12]=Helen. Assign values to an array LINK and a variable START so that INFO, LINK and START from an alphabetical listing of the names.	6
		Q.3	All Questions are compulsory	10
1,2	CO1	a	Find Inorder, Preorder and Postorder for the following 	3
1,2	CO3	b	What is Tree? Explain terminology of Tree.	7
		Q.4	Attempt any two out of three questions	10
1,2	CO3	a	What is graph? Explain terminology of graph.	5
1,2	CO4	b	What are the various ways in which a graph can be represented? Explain any 1 in detail.	5
1,2	CO4	C	Write the output of DFS and BFS traversals on the following graph considering starting vertex as 1. 	5
