

Darshan Institute of Computer Applications

Academic Year 2024-25 **Question Bank**

BCA/B.Sc.I.T. | Semester-IV

Prof. Vijay Shekhat

2304CS411 - Data Structure

Sr. Unit Question BL CO

No.	No.	•		
1	1	Define Data Structure. Give differences between linear and nonlinear data structures.	U	CO1
2	1	Discuss various types of data structures with example.	U	CO1
3	1	Give differences between primitive and non-primitive data structures.	R	CO1
4	1	List and explain various operations on data structures.	U	CO1
5	1	What is Complexity of an algorithm? Explain Time and Space Complexity.	U	CO1
6	1	What is Algorithm? Discuss best, worst and average case analysis of an algorithm.	J	CO1
7	1	Why we need Arrays? Explain declaration and initialization of an Array.	Α	CO1
8	1	Define Array. State and explain applications of Array.	J	CO1
9	1	Given an array "int marks[] = {99, 67, 78, 56, 88, 90, 34, 85}", calculate the address of marks[5], if the base address is 1000.	Α	CO1
10	1	Let Age[5] be an array of integers such that, $Age[0] = 2$, $Age[1] = 5$, $Age[2] = 3$, $Age[3] = 1$, $Age[4] = 7$. Show the memory representation of the array and calculate its length.	Α	CO1
11	1	Explain Traversing an Array with algorithm or program.	Α	CO1
12	1	Explain Inserting an element at the End of an Array with algorithm or program.	Α	CO1
13	1	Explain Inserting an element at specified position in an Array with algorithm or program.	Α	CO1
14	1	Explain Deleting an element from the End of an Array with algorithm or program.	Α	CO1
15	1	Explain Deleting an element from specified position in an Array with algorithm or program.	Α	CO1
16	1	Explain merge of two Array.	U	CO1