

BSCS-SN201

B.Sc. DEGREE EXAMINATION, NOVEMBER - 2022
(SECOND SEMESTER) (New Regulation) (CBCS Pattern)
COMPUTER SCIENCE

Data Structures Using C

**(NOTE : 2021-22 ADMITTED STUDENTS HAVE TO
ANSWER THE QUESTIONS IN ENGLISH MEDIUM
ONLY)**

Time : 3 Hours

Max. Marks : 75

SECTION - A

Answer any Five of the following Questions :

[5 × 5 = 25]

1. Define Linear and Non linear data structures.
2. Explain about Abstract data types.
3. Explain about Software Engineering.
4. What is Dynamic Memory Allocation?
5. What is need of Double linked list?
6. Explain about Circular Queue.
7. Explain about Spanning Tree.
8. What are the advantages and disadvantages of Merge sort?

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SECTION - B

Answer Five questions :

[5 × 10 = 50]

- 9) a) Explain about different approaches to design an algorithm.

OR

- b) Explain different operations on Double linked list.

- 10) a) Briefly explain about Big 'O' notation.

OR

- b) What is an Array? Explain types of Arrays with examples.

- 11) a) What is Stack? Explain various operations of stack.

OR

- b) Write a program for queue using linked list.

- 12) a) Write about Tree traversals techniques.

OR

- b) What is an Binary Search? Write an algorithm for binary search.

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13) a) Explain Quick sort algorithm with example.

OR

b) Explain about BFS and DFS.

