

P-835

Total Pages : 3

Roll No.

BCA-06

Data Structure through C Language

Bachelor of Computer Science (BCA)

2nd Semester Examination, 2023 (June)

Time : 2 Hours]

[Max. Marks : 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION-A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. What are two dimensional arrays? Write a Program to store elements in two dimensional array and display only diagonal elements from it.

2. Write an algorithm to create a Linked List? What is the benefit of Linked List?
3. What is circular queue? Explain the addition and deletion operation performed on a circular queue with necessary algorithm.
4. What is sorting? Which of the sorting technique has best performance in terms of storage and time complexity? Justify your answer.
5. What is Binary Tree Traversal? Explain Inorder Tree Traversal.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. Explain one dimensional and two dimensional arrays. How they are implemented?
2. What do you mean by Time complexity of an algorithm? Explain with example.

3. Write PUSH() and POP() operations of stack.
 4. Explain Breadth First Search technique in a Graph?
 5. What are the application of stack? Explain.
 6. Explain Linked List Representation of Queue.
 7. How will you perform B-Tree searching?
 8. What is selection sort? Explain.
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