R-17

Code: R17/3304/R

Faculty of Science

B. Sc (Computer Science) II-Year, CBCS-III Semester Regular Examinations, Dec/Jan 2019-20

PAPER: DATA STRUCTURES AND FILE PROCESSING

Time: 3 Hours Max Marks: 80

Section-A

I. Answer any **FIVE** of the following questions (5x4=20 Marks)

1. What are the different types of Data Structures?
2. What are the primitive operations of Stack?
3. What are the applications of Queues?
4. Write about Deque?
5. Write the operations and tree traversals of Binary tree?
6. Write about Sequential Search?
7. Define Collision. Give an example?
8. What is direct Access file organization?

Section-B

II. Answer the following questions (4x15=60 Marks)

9. (a)Explain about Sequential representation of Stack?

(OR)

(b) Explain about the processing of function calls?

10.(a) Explain how to implement recursive functions?

(OR)

(b) Explain how to insert and delete a node from linked list?

11.(a) Construct a binary tree for the following elements?

14,15,4,9,7,18,3,5,16,4,20,17,9,14,5.

(OR)

(b) Arrange the following elements using merge sort.

25,57,48,37,12,92,86,33.

12.(a) Explain about ISAM?

(OR)

(b) Create a heap of size 8 for the following elements?

25,57,48,37,12,92,86,33.

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