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189062

**2nd Sem, Level 5 / DVOC
(Software Development)**

Subject : Data Structure

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Multiple Choice questions. All questions are compulsory. (5x1=5)

Q.1 Which one of the following is the process of inserting an element in the stack?

- a) Insert b) Add
- c) Push d) None of the above

Q.2 Which of the following is not the type of the Queue?

- a) Linear Queue b) Circular Queue
- c) Dequeue d) Single ended Queue

Q.3 Which of the following is not the application of the stack data structure.

- a) String reversal
- b) Recursion
- c) Backtracking
- d) Asynchronous data transfer

Q.4 Which data structure is mainly used for implementing the recursive algorithm?

- a) Queue b) Stack
- c) Binary tree d) Linked list

Q.5 Which of the following is the infix expression?

- a) $A+B*C$ b) $+A*BC$
- c) $ABC+*$ d) None of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (5x1=5)

Q.6 Define global variable

Q.7 Define the term searching.

Q.8 LIFO stands for _____

Q.9 Define flowchart

Q.10 Define the term sorting.

SECTION-C

Note: Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)

Q.11 What are the differences between doubly and circular linked list?

Q.12 Explain priority queue and write its advantages.

Q.13 What are the steps involved in the program development cycle.

Q.14 Explain Tree representations as array.

Q.15 Write the limitations of linear queue.

Q.16 Explain bubble sorting method with an example.

Q.17 What are the applications of stack.

Q.18 How an element is searched in binary search tree.

SECTION-D

Note: Long answer type questions. Attempt any one questions out of two questions. (1x10=10)

Q.19 What is Graph. Explain the various types of graphs with examples.

Q.20 What is a binary tree. Explain various traversing methods of binary tree in details.