

- Q.12 Compare stack and queue data structures.
- Q.13 Explain priority queue and its advantages
- Q.14 Discuss threaded tree. What are the advantages of threaded tree.
- Q.15 Discuss in brief about binary search with an example.
- Q.16 Define the terms:-
- Degree of a tree
  - Height of a tree
  - Parent
  - Root node
  - Level
- Q.17 Discuss in brief about depth first traversal of a graph
- Q.18 Mention the steps involved in the program development cycle

### SECTION-C

- Note:** Long answer questions. Attempt any one questions out of two questions. (1x10=10)
- Q.19 What is a binary tree. What are the various methods to transverse a binary tree. Explain them with examples.
- Q.20 What is meant by sorting. Mention the various sorting methods. Discuss any two in detail

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## Dvoc - Level -5 2nd Sem / Software Development Subject : Data Structure

Time : 2 Hrs.

M.M. : 50

### SECTION-A

**Note:** Very short questions. Attempt all ten questions.  
(10x1=10)

- Q.1 Define data structure
- Q.2 Tree is an example of \_\_\_\_\_ data structure
- Q.3 The basis operations in stack are \_\_\_\_\_
- Q.4 Define Dequeue.
- Q.5 Mention one application of graph
- Q.6 LIFO stands for \_\_\_\_\_
- Q.7 Mention one limitation of linear queue
- Q.8 Mention one application of linked list
- Q.9 Node with no children is called \_\_\_\_\_
- Q.10 Define flowchart

### SECTION-B

**Note:** Short answer type questions. Attempt any Six questions out of eight questions. (6x5=30)

- Q.11 Compare doubly and circular linked list

- Q.12 Compare stack and queue data structures.
- Q.13 Explain priority queue and its advantages
- Q.14 Discuss threaded tree. What are the advantages of threaded tree.
- Q.15 Discuss in brief about binary search with an example.
- Q.16 Define the terms:-
- a. Degree of a tree      b. Height of a tree
  - c. Parent                      d. Root node
  - e. Level
- Q.17 Discuss in brief about depth first traversal of a graph
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### SECTION-C

- Note:** Long answer questions. Attempt any one questions out of two questions. (1x10=10)
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### SECTION-A

**Note:** Very short questions. Attempt all ten questions.  
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- Q.1 Define data structure
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**Note:** Short answer type questions. Attempt any Six questions out of eight questions. (6x5=30)

- Q.11 Compare doubly and circular linked list