

D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****NOVEMBER – 2016****15CCS3A****C++ AND DATA STRUCTURE****Time : 3 Hrs****Max. Marks : 75****SECTION-A (10 x 2 = 20)****Answer ALL questions.**

1. What is Encapsulation?
2. What are Input and Output Functions?
3. What is Inline Function?
4. What is Virtual Function?
5. Define Data Structure and its types.
6. Define Ordered List.
7. Define Linked List.
8. Why Linked List is preferred instead of arrays?
9. Define Binary Tree.
10. Give four types of Graph.

SECTION-B (5 x 5 = 25)**Answer any FIVE of the following questions.**

11. What is a Conditional Operator? Explain with an Illustrative example.
12. Explain the syntax of the for Loop in C++ with suitable examples.
13. Explain Virtual Functions and Polymorphism with example.
14. Write short notes on Operations of Stack.
15. Illustrate representation of a Polynomial Addition.
16. Explain Insertion Operation in Singly Linked List.
17. Write short notes on BFS.
18. Give brief notes on Tree Traversals.

SECTION-C (3 x 10 = 30)**Answer ALL questions.**

19. (a) Explain Stream and Stream classes in C++ with example.
(Or)
(b) Explain Friend function with example.
20. (a) Explain Infix to Postfix conversion with example.
(Or)
(b) Explain Double linked list operations.
21. (a) Explain Binary tree operations.
(Or)
(b) Explain Graph and its types.