NOVEMBER/DECEMBER 2018

BCA21 — C++ AND DATA STRUCTURE

Time : Three hours   Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Conditional operator?

2. Write the syntax of for-loop.

3. Define – Inline function.

4. State the term - Function prototype.

5. What is Hierarchical inheritance?

6. Mention the names of Classes for File stream operations.

7. Define the term — Queue.

8. Give any two examples for Data structure.

9. Define the term Tree.

10. Specify the Types of Graph.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Discuss on the working of while and do-while loop statements with example.

Or

(b) Describe the syntax of if-else and switch statements using examples.

12. (a) Explain the methods of passing parameters to Functions and return values.

Or

(b) Discuss on the concept of Function overloading with example.

13. (a) Describe the working of Single Inheritance mechanism.

Or

(b) Explain the concept of Polymorphism with example.

14. (a) Discuss on the Stack operations using Array.

Or

(b) Describe the method of Infix to Postfix conversion.

15. (a) Explain the Dijkstra's algorithm for finding shortest path.

Or

(b) Discuss on the Graph Traversal methods.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the usage of Arrays with Pointers.

17. Describe the different types of Constructors using example.

18. Discuss on the method of opening, closing, updating and processing a File.

19. Explain the operations of Singly linked list using example.

20. Describe the Recursive Tree Traversal methods with algorithms.