

MAY 2013

P/ID 16151/PITSA

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. How do you pass objects to functions? Illustrate with relevant code.
2. How do you resolve ambiguity in function overloading? Illustrate with example.
3. Explain class template and function template.
4. Enumerate few exception's and explain any two.
5. How do you traverse in a circular linked list? Explain.
6. Compare stack with queue, with respect to insertion and deletion.
7. How a binary tree is represented? What is a BST?
8. Write short notes 'this' pointers.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. What is dynamic memory allocation? Write a program in C++ to merge two unsorted arrays into a single sorted one.
10. Explain with suitable C++ program for overloading of operators.
11. Describe the virtual functions and their types, with suitable illustrations.
12. Write a C++ program to insert a group of three nodes into a DLL.
13. How lists are used in the evaluation of expressions? Illustrate with a program.
14. What is a threaded binary tree? How insertion and deletion take place? Explain.
15. Write the algorithm and implementation for obtaining minimum cost spanning tree.
16. Describe about overloading constructors with example.
17. What is polymorphism? Explain with a sample program.
18. Write a brief note on
 - (a) Representation of arrays
 - (b) Operations on arrays.