



**SB-0712**

**Second Year B. Sc. Examination**

**March / April – 2011**

**Computer Science : Paper - III**

**(Data Structure Using C++)**

Time : Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दशावलि निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.  
 Fillup strictly the details of signs on your answer book.

Name of the Examination :

Name of the Subject :

Subject Code No. :     Section No. (1, 2,.....) :

Seat No. :

Student's Signature

- (2) All questions carry **equal** marks.
- (3) Figures in the **right** indicate full marks.

1 Answer in brief : 14

- (i) What is formal parameter and actual parameter ?
- (ii) Write use of >> and << operator.
- (ii) What is inline function ?
- (iv) Define stack.
- (v) Define the term encapsulation.
- (vi) Define function overloading.
- (vii) Define path and leaf.

2 (a) Explain the concept of OOP and give benefits of OOP. 14

(b) Which types of constructors are used in C++ ?  
 Discuss with example.

**OR**

2 (a) Write note on templates. 14

(b) Discuss the priority queue with example.

3 (a) What do you mean by exception ? How will you use 14  
 exception ? Give proper example of it.

(b) Write a program to overload unary operator ++, --.

**OR**

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**[Contd...**

- 3 (a) Define friend function. Write a program which will use friend function. 14  
(b) Write a program to overload new and delete operator.
- 4 (a) Write an algorithm to arrange elements of an array using insertion sort. 14  
(b) Write an algorithm to search an item from list using linear search.

OR

- 4 (a) Define the file. What are the differences between opening a file with open ( ) and constructor function. 14  
(b) Explain how data file can be opened and closed in C++ with example ?
- 5 Attempt any **two** : 14  
(a) Write an algorithm to convert postfix expression into infix expression.  
(b) Explain binary tree. Discuss all possible operation on it.  
(c) Write a program to create a stack linked list and display the stack list.  
(d) Write a program to perform insert and display operations in doubly link list.
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