Sr. No. 7102

Exam. Code: 206602
Subject Code : 4595

M.Sc. Bio-informatics - 2nd Sem.

(2517)

Paper - BI-522: Advance Programming in C & C++ & Visual Basic

Time allowed: 3 hrs. **Max. Marks: 75**

Note:-- Section A is compulsory. Each part is of 1.5 marks. Attempt **ONE** question from each unit of Section B. Each question is of **12** marks.

Section A

1. What are the advantages of using an ActiveX controls?
2. Briefly explain control structures in visual basic.
3. What are Inline Functions? Give an example.
4. Give the use of Scope resolution operator.
5. What is Function Overloading? List out its advantages.
6. What is a Containership? How it is different from Inheritance?
7. What is pure virtual function? Give Example.
8. What is an abstract class?
9. Differentiate between Linked List and Arrays.
10. What is a Stack? Discuss operations on Stacks.

Section B

UNIT-I

Q 1. What is common Dialog Box? How many types of Common Dialog Box are there in VB 6.0? Describe each with suitable example. **12**

Q 2.

a) Describe most important features of visual basic language. **6**

b) Explain different types of controls in VB. **6**

UNIT-II

Q 3. What the advantages of using object oriented programming? Describe the core concept of object oriented programming in detail. **12**

Q 4.

a) What is a Friend Class? Write a C++ program to implement a Friend Class. **6**

b) What are Constructors and Destructors? What are the advantages of using Constructor? Whether constructors can be overloaded. Justify your answer through example. **6**

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UNIT-III

Q 5. What is Inheritance? Explain different types of Inheritance with example. Discuss ambiguity in multiple inheritance. 12

Q 6. Write a C++ program to find the volume of cube, cylinder, sphere, cone and rectangular box using function overloading. 12

UNIT-IV

Q 7. What are virtual functions? Write a program to declare a virtual function. What are the rules associated with virtual function? What are the uses of virtual function? 12

Q 8. Write short note on following:

a) Polymorphism. 4
b) File handling. 4
c) Abstract Class. 4

UNIT-V

Q 9. What are data structures? Explain Linear and Non-Linear Data Structures. 12

Q 10.

a) Five items A, B, C, D and E are pushed in stack one after the other starting from A. The stack is popped four times and each element is inserted in a queue. Then two elements are deleted from the queue and pushed back on the stack. Now one item is popped from stack. What is the popped item? 3

b) Perform following operations on stack of size 5

Push(1), Pop(), Push(2), Push(3), Pop(), Push(4), Pop(), Pop(), Push(5)
at the end of last operation. What are the total numbers of elements present in stack? 3

c) What are Queues? What are the operations associated with Queue? How it is different from stack? 6

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