BCA/M-24   1871

ADVANCED PROGRAMMING USING C++
BCA-242

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a) What are the functions of a virtual destructor ? 3

    (b) Design a template to find average of an array. 3

    (c) What is the meaning of the following statement :

    $$fp = fopen (\text{``xyz.a''}, ab+) ?$$ 3

    (d) Why we need virtual function ?   3

    (e) How eoln() function detects end of a line ?   2

    (f) Explain syntax for int to float type conversion using type casting.   2

Unit I

2. (a) What are the ways by which we can access public member functions of an object ?   8

(b) How compile time polymorphism is achieved ? Explain with an example. 8

3. (a) What is pointer to a function ? Explain the situations in which such a concept is used ? 8

(b) What does the 'this' pointer point to ? Also write the application of this pointer. 8

Unit II

4. (a) What is type casting conversion for user defined data types ? Explain with an example. 8

(b) How are public and protected members of a base class inherited in a derived class by different visibility modes ?

5. Explain with example :
   (a) Basic data type to a class data type
   (b) One class type to basic data type.

Unit III

6. Write syntax of :
   (a) Multilple Inheritance
   (b) Hierarchal Inheritance.

7. (a) How constructors are executed in a multilevel inheritance ?

(b) What is a template function ? Can a template function overloaded ?

8

Unit IV

8. (a) What should be placed inside a try block and a catch block ? Write syntax of both. 8

(b) Explain, how while(fin) statement detects the end of a file that is connected ti fin stream ? 8

9. Differentiate between the following :

(a) fclose() and fflush() 8

(b) tellg() and tellp() file pointer manipulators. 8