

BCA/M-23

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 rules for creating virtual functions ?
3
- (b) Design a template to find sum of an array. 3
- (c) What is the meaning of the following statement :
fp = fopen ("abc.x", wb+) ? 3
- (d) When do we use multiple exception handlers ? 3
- (e) How eof() function detects end of file ? 2
- (f) Explain syntax for float to int typeconversion using
typecasting. 2

Unit i

2. (a) What are abstract class ? Why are abstract classes
needed ? 8
- (b) How run time polymorphism is achieved ? Explain
with an example. 8

3. Write notes on the following :
- (a) Virtual class 8
 - (b) 'This' pointer. 8

Unit II

4. (a) When do we use the protected visibility specifier to a class member ? 8
- (b) What is an operator function ? Explain with an example. 8
5. Explain with example :
- (a) Basic data to class data type conversion 8
 - (b) One class to another class type conversion. 8

Unit III

6. Write syntax of the following :
- (a) Multilevel Inheritance 8
 - (b) Hybrid Inheritance. 8
7. Differentiate between the following :
- (a) Containership and inheritance 8
 - (b) A template and a macro. 8

Unit IV

8. (a) What is the difference between opening a file with :
- (i) using a constructor
 - (ii) using open() function. 8

- (b) What are the advantages of using exception handling mechanism in a program ? 8
9. Differentiate between the following :
- (a) a text stream and a binary stream 8
- (b) seekg() and seekp() file pointer manipulators. 8