Roll No…………………

BCA/M-18
ADVANCED PROGRAMMING USING C++
Paper: BCA-242

Time: Three Hours   Maximum Marks: 80

Note: Attempt five questions including No. 1 which is compulsory. All questions carry equal marks.

1. Compulsory Question :
   (i)   What is the use of an object?
   (ii)   What is Single Inheritance?
   (iii)   Write examples of derived data types.
   (iv)   What is an Expression?
   (v)   What do you mean by Module?
   (vi)   What is a Unary Operator?
   (vii)   What is the use of delete operator?
   (viii) What is a data type?

UNIT-I

2. (a) What is the use of polymorphism feature in C++? Explain the concept of virtual function with of suitable program.
   (b) What is a destructor? Is it necessary to use destructor in a class? Explain.

3. (a) What is the use of pure virtual function? Explain the concept of virtual function with example.
   (b) How a virtual destructor can be define?

UNIT-II

4. (a) What do you mean by conversion? Why do we need it? How can we convert data from one form to another?
   (b) What do you understand by conversion between object between different classes? Explain with the help of syntax and examples.

5. What do you mean by private, protected and public data members and member functions? Explain all the private, protected and public class derivation rules for data members and member functions with suitable diagram.

UNIT-III

6. (a) What is the use of inheritance in C++? Write a program in C++ to implement multiple inheritance.

(b)   What do you mean by robust features of C++? How is it implemented?

7. (a)   What is the role of constructor and destructor in inheritance? Explain with example.
   (b)   What is the use of function template in C++? Explain with the help of syntax and example.

UNIT-IV

8. (a)   What are inputs and output streams? Describe the various classes available for file operations.
   (b)   What is an exception? How we can catch and throw an exception? Write a program to catch and throw an exception of a number divided by zero.

9. (a)   What are the limitations of a text file? What is the solutions of these limitations?
   (b)   What are the different operations that can be performed on a file? Explain.