BCACAC 157

Credit Based Second Semester B.C.A. Degree Examination, April/May 2017
(New Syllabus – Common to all Batches)
OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours

Max. Marks : 80

Note : Answer **any ten** questions from Part – **A** and **one full** question
from **each** Unit of Part – **B**.

PART – A
(10×2=20)

1. a) Differentiate between break and continue statements in C++.

b) Define Encapsulation.

c) How do you define member function outside the class ? Give example.

d) Illustrate the use of setw and setprecision manipulators.

e) What is a destructor ? Give example.

f) List the C++ operators that can't be overloaded.

g) Give the general form of derived class declaration.

h) What is late binding ?

i) What is an abstract class ?

j) How the ambiguity in multiple inheritance can be resolved ?

k) What are default arguments ?

l) Give the significance of 'protected' access specifiers.

PART – B
Unit – I

2. a) List the features of object oriented programming.

b) Explain different forms of if statements with syntax and example.

c) Explain the basic data types in C++ with examples.   (5+5+5)

P.T.O.

3. a) What are symbolic constants ? Explain the various methods of defining symbolic constant in C++.

   b) What are the advantages of object oriented programming ? Explain.

   c) Explain any two loop control structures with syntax and example.   (5+5+5)

Unit – II

4. a) Explain static data members and static member functions with example.

   b) What are inline functions ? How are they useful ?

   c) Write a program to add and subtract two complex numbers using friend function.   (6+4+5)

5. a) Explain the concept of function overloading with suitable example.

   b) Explain any four Mathematical functions with example.

   c) Explain the concept of array of objects with example.   (6+4+5)

Unit – III

6. a) What are the characteristics of a constructor ?

   b) How to overload a unary operator ? Explain with an example.

   c) Explain nesting of member functions with example.   (5+5+5)

7. a) How to define conversion function for class to basic type conversion ? Explain with an example.

   b) Write a note on : i) copy constructor ii) parameterized constructor.

   c) Write a C++ program to compare two strings using operator overloading techniques.   (5+5+5)

Unit – IV

8. a) Write a note on constructors in derived class.

   b) Explain hierarchical inheritance with example.

   c) List any five rules used with virtual function.   (5+5+5)

9. a) What is 'this' pointer ? Explain its importance in C++ with example.

   b) Explain private and public mode of inheritance with syntax and example.

   c) What is pure virtual function ? How is it different from normal function ?   (4+6+5)

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