Reg. No. | | | | | | | | | |

BCACAC 157

Credit Based Second Semester B.C.A. Degree Examination, September 2022 (Common to all Batches) OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours Max. Marks : 80

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

PART – A

1. a) Define (i) Data Abstraction (ii) Encapsulation. **(10×2=20)**

   b) What is the use of scope resolution operator ?

   c) Differentiate between break and continue statements in C++.

   d) Give the syntax of switch statement.

   e) What is inline function ? How it is defined ?

   f) What are manipulators ? Give an example.

   g) What are default arguments ? Give example.

   h) What is constructor ? Give an example.

   i) Differentiate private and public members of a class.

   j) What are objects ? How are they created ?

   k) Give the general form of derived class declaration.

   l) What is Function Overloading ?

PART – B

Unit – I

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

   b) Explain any two loop control structures with syntax and example.

   c) Write a note on different types of expressions. **(5+5+5)**

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3. a) Explain the structure of C++ program.
   b) Explain the classification of data types in C++.
   c) Explain any two forms of if statement with syntax and example. **(5+5+5)**

Unit – II

4. a) Explain the concept of function overloading with suitable example.
   b) What is a class ? How it is defined ? Explain with example.
   c) Write a note on function proto typing. **(5+5+5)**

5. a) Explain static data members with example.
   b) What is a friend function ? Mention its merits and demerits.
   c) With an example explain the concept of array of objects. **(5+5+5)**

Unit – III

6. a) Explain the nesting of member function with example.
   b) What are the characteristics of the constructors ?
   c) With syntax and example, explain how to implement operator overloading. **(5+5+5)**

7. a) Write a note on (i) Default constructor (ii) Parameterized constructor.
   b) Explain class to basic type conversion with example.
   c) What is a destructor ? Explain with an example. **(5+5+5)**

Unit – IV

8. a) Explain Single inheritance with example.
   b) What is 'this' pointer ? Explain its importance in C++ with example.
   c) Write a note on runtime and compile time polymorphism. **(5+5+5)**

9. a) Explain private and public mode of inheritance with syntax and example.
   b) Explain multiple inheritance with example.
   c) What is virtual function ? Explain pure virtual functions with an example. **(5+5+5)**
