Reg. No.

II Semester B.C.A. Degree Examination, April/May 2019

(Credit Based Semester Scheme)

(Common to All Batches)

Object Oriented Programming Using C++

Time : 3 Hours]   [Max. Marks : 80

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

PART – A

1.   Answer **any ten** of the following :   **(10 × 2 = 20)**

   (a)   Define : (i) Data abstraction (ii) Encapsulation.

   (b)   What are manipulators? Mention any two.

   (c)   What is an implicit type conversion?

   (d)   What is a default argument? Give example.

   (e)   Differentiate private and public members of class.

   (f)   When do you use static data member? Give an example.

   (g)   List any four operators that cannot be overloaded.

   (h)   What is a destructor? Give syntax.

   (i)   What is the use of keyword operator in C++? Give an example.

   (j)   What is dynamic binding?

   (k)   What do you mean by pure virtual function?

   (l)   What is abstract class in C++?

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PART – B

UNIT – I

2. (a) Explain the benefits of Object Oriented Programming.

   (b) Explain basic data types supported by C++.

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

   (5 + 5 + 5)

3. (a) Explain any two forms of *if* statements with syntax and example.

   (b) Explain with example the concept of reference variable in function call.

   (c) List operators supported by C++. Explain any two types.   **(5 + 5 + 5)**

UNIT – II

4. (a) Explain the concept of overloading a function in C++ with example.

   (b) With proper example, explain how to pass and return an object to/from a function.

   (c) What are inline functions? How they are useful in C++? Explain.

   (5 + 5 + 5)

5. (a) Explain the concept of private member functions with example.

   (b) What is a friend function? Mention its merits and demerits.

   (c) Explain different ways of defining member function in a class with example.   **(5 + 5 + 5)**

UNIT – III

6. (a) How do you overload a unary operator using member function? Explain with example.

   (b) Explain copy constructor with an example.

   (c) Explain basic to class type conversion with an example.   **(6 + 4 + 5)**

7. (a) How do you overload a binary operator using member function? Explain with example.

   (b) Explain with example how parameterized constructor is defined in a class.

   (c) Explain class to basic type conversion with an example.   **(6 + 4 + 5)**

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UNIT – IV

8. (a) Explain single inheritance with an example.

(b) Explain with example how runtime polymorphism is achieved using virtual functions.

(c) What is 'this pointer'? Explain its importance in C++. **(6 + 5 + 4)**

9. (a) Explain multiple inheritance with an example.

(b) Explain how pointer to objects is used in a C++ program.

(c) Define containership. Explain with an example. **(6 + 5 + 4)**

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