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

BCACAC 157

Credit Based Second Semester B.C.A. Degree Examination, April/May 2015
(New Syllabus) (2012-13 Batch Onwards)
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 in Part **B** :*

PART – A **(10×2=20)**

1. a) What is dynamic binding ?
   b) What are manipulators ? Give an example.
   c) Give the syntax of switch statement.
   d) Give two situations in which an inline function may not work.
   e) Differentiate class and structure in C++.
   f) Give any two properties of a friend function.
   g) List any four operators that cannot be overloaded.
   h) What is a constant object ? How is it declared ?
   i) What is destructor ? How do you define it in C++ ?
   j) When do we use protected access specifies in C++ ?
   k) Give the general form of derived class declaration.
   l) What is a virtual function ?

PART – B

UNIT – I

2. a) What are the advantages of OOPs ?
   b) Explain three methods of defining symbolic constants in C++.
   c) Explain the use of break and continue statements in C++. **(5+6+4)**

3. a) Explain the classification of data types in C++.
   b) Explain precedence and associatively of the operators with reference to the following expression a + b *c/d – (e + f)/d.
   c) Explain the for loop structure with a suitable example. **(5+5+5)**

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UNIT – II

4. a) Explain the different ways of defining member functions of a class with an example.
   b) What is friend function ? What are the merits and demerits of using friend function ?
   c) Write a note on function prototyping. **(5+5+5)**

5. a) Explain how to pass arrays to functions with a suitable example.
   b) Write a note on objects as functional arguments.
   c) With proper example, explain how to pass and return an object to/from a function. **(5+4+6)**

UNIT – III

6. a) How do you overload a binary operator using member function ? Explain with example.
   b) Write a note on copy constructor.
   c) Construct a class INTEGER containing an integer data member and write a program to overload four arithmetic operators so that they operate on the objects of INTEGER. **(5+4+6)**

7. a) What are the different ways of calling a constructor ? Explain with an example.
   b) Explain class to basic type conversion with an example.
   c) Define class string having data member for holding string data. Include all types of constructors to initialize objects. Write a program to test your class to do the following :
      i) To copy one object to another
      ii) Two join two strings using overloaded + operator. **(4+5+6)**

UNIT – IV

8. a) What is this pointer ? Explain its importance in C++ with an example.
   b) Explain how pointers to object are used in a C++ program.
   c) Explain private mode of inheritance with example. **(5+5+5)**

9. a) Explain multiple inheritance with an example.
   b) Write a note on compile time and run time polymorphism.
   c) What are the basic rules for a the function to be virtual ? **(5+4+6)**