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Paper Code : EC605B PROGRAMMING LANGUAGE
UPID : 006038

Time Allotted : 3 Hours   *Full Marks :70*

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :   [1 x 10 = 10]

(I) What is Inheritance in C++?

(II) How many template parameters are allowed in template classes?

(III) What is a friend function in C++?

(IV) What is Constructor?

(V) C++ is superset of which langauge?

(VI) How many Access specifier are there in C++?

(VII) Which keyword is used to define the macros in c++?

(VIII) Which is the correct syntax for printing the address of the first element?

(IX) Which constructors are provided by the C++ compiler if not defined in a class?

(X) Which of the operator cannot be overloaded?

(XI) Which is the correct syntax to print the message in C++ language?

(XII) What is output of below program?
```
int main()
{
const int a=10;
a++;
cout<<a;
return 0;
)
```

Group-B (Short Answer Type Question)
Answer any three of the following :   [5 x 3 = 15]

2. Explain about data types in C++.   [5]

3. Compare return by value and return by reference in C++ .   [5]

4. Discuss inheritance as applied to OOP?   [5]

5. What is the need of overloading operators and functions?   [5]

6. How do we declare a member of a static class, explain with a program ?   [5]

Group-C (Long Answer Type Question)
Answer any three of the following :   [15 x 3 = 45]

7. (a) Discuss default constructor and parameterized constructor with the help of an example in C++.   [8]

(b) Describe the following terms with respect to C++ with proper examples.   [7]
1)new operator 2) destructor.

8. (a) Write a program to show the parameter passing.   [7]

(b) Explain Call by value and call by reference with programmatic example.   [8]

9. (a) What is a constructor? Is it mandatory to use constructors in a class?   [5]

(b) Compare parameterized constructor and copy constructor.   [5]

(c) Describe the importance of destructors.   [5]

10. (a) Write a short note on UML.   [5]

(b) Explain different qualities of software system.   [5]

(c) Write a short note on process life cycle with proper diagram.   [5]

11. (a) Discuss the role of access specifiers in inheritance.   [5]

(b) Show visibility of access specifiers. [5]

(c) When access specifiers are inherited as public, private and protected. [5]

*** END OF PAPER ***