

**BTCS-305****Object oriented Programming using C++**

Paper ID- A1129

**Max Marks 60****Time 3 hrs****Note : Attempt four question from section B and two from section C. Section A is compulsory****Section A**

2x10=20

- Q1. 1. What is the use of constructors  
2. What is the use explicit constructor  
3. What is a virtual class.  
4. What is a friend functions  
5. What is meant by initialization of a variable?  
6. What is polymorphism  
7. What is advantage of scope resolution operator  
8. What is a ambiguity in inheritance  
9. Distinguish between static members & variables? How are they useful?  
10. What are virtual constructors? Give relevant examples to explain

**Section B**

4x5=20

- Q 2. How are Constructors & destructors invoked in derived classes? What actually happens when a destructor is invoked?
- Q 3. What do you understand by inheritance? Give its various types and access mechanisms.
- Q 4. Explain how base class member functions can be invoked in a derived class if the derived class also has a member function with the same name.
- Q 5. Write a program to accept a line & count the number of words in c++
- Q 6. Write a program to accept the record of 5 persons with their names, age & addresses & also display them. Use structures to implement the program.

**Section C**

2x10=20

- Q 7. What is the use of default & copy constructors. Is a constructor and distructor mandatory for a Class. Explain by giving examples in each case.
- Q 8. Write a program to overload the +, -, X, % operator to find the addition, subtraction, multiplication and division of Complex numbers
- Q 9. Write a program to copy the contents of one file into another using command line arguments. How are binary files different from text files in CPP?

\_\_\_\_\_ End \_\_\_\_\_