

K-25/2110

7627/N

Class : ~~BCA~~ 3<sup>rd</sup> Semester  
Paper : BCA-215  
Title of Paper : Object Oriented Programming using C++  
Time Allowed : 3 Hours  
Maximum Marks: 75

Note: Candidates are required to attempt five questions in all selecting at least two questions each from sections A and B. Section C is compulsory.

**SECTION A**

- Q1. Differentiate between functional and object oriented programming. 15  
Q2. What are the various types of operators in C++? What do you mean by operator precedence and associativity? Explain giving examples. 15  
Q3. Define functions. What are the advantages of using functions? What are the various methods of parameter passing to function? Explain. 15  
Q4. Discuss the following in detail  
a) Recursion 05  
b) Function overloading 05  
c) How objects and classes are defined and accessed in C++? 05

**SECTION B**

- Q5. How static data members and static member functions are used? What are the restrictions on the use of static member functions? 15  
Q6. What do you mean by destructor? List various properties of destructors. What are virtual destructors? What are the rules for destructors? 15  
Q7. Define inheritance. What are the various types of inheritance? Explain giving examples. 15  
Q8. What do you mean by operator overloading? Which operators cannot be overloaded? How can we overload unary and binary operators? Explain giving suitable examples. 15

**SECTION C**

- Q9. a) Differentiate between null pointer and a void pointer. 03  
b) What is the significance of scope resolution operator? 03  
c) What do you mean by function prototype? How it is different from function definition? 03  
d) What do you mean by pure virtual function? 03  
e) Differentiate between early binding and late binding. 03