

B.E./B.Tech. (FT) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2014

Branch: Electronics and Communication Engineering

REGULATIONS : 2004

Sixth Semester

EC 502 - OBJECT ORIENTED PROGRAMMING

Time: 3 Hours

Max.Marks: 100

Answer ALL the Questions

PART – A (10 x 2 Marks = 20 Marks)

1. Define the term “class” and “object”.
2. What are the difference between Arrays and Pointers?
3. How do you classify the objects based upon their life time?
4. What do you meant by “*inline*” code in C++ program
5. List out the operators that cannot be overloaded
6. What do you understand by Polymorphism
7. Write a function template that takes two different data types as an argument
8. What is the advantage of using templates in C++ program
9. What are the types of inheritance ?
10. What are abstract classes?

PART – B (5 x 16 Marks = 80 Marks)

11. (a) Briefly explain the salient features of Object Oriented Programming (8)
(b) With an example program, explain how C++ supports encapsulation and data abstraction. (8)
12. (a) Explain the usage of on **Public** and **Private** access specifier for accessing data member and Member functions with an example program
(OR)
12. (b) Create a class, which keeps track of the number of its instances. Use static data member, constructors, and destructors to maintain updated information about active objects.

13. (a) Explain the importance of operator overloading by using an example program.

(OR)

13. (b) Write a program to overload unary operator for processing counters. It should support both upward and downward counting. It must also support operator for adding two counters and storing the result in another counter.

14 (a). Design a class template for “*FIFO*” data structure with necessary data members and member functions. Using this template, perform some simple operations on user-defined object..

(OR)

14 (b). Design a class template for “*Queue*” data structure with necessary data members and member functions. Using this template, perform some simple operations on user-defined object.

15. (a). What are exceptions? What are the differences between synchronous and asynchronous exceptions and explain each one with example program

(OR)

15. (b) What do you meant by inherited, overloaded and Overridden and also discuss the different form and levels of Inheritance with an example program
