# Seventh Semester B.Tech Degree Examination

# (2013 Scheme)

## 13.706.1 OBJECT ORIENTED PROGRAMMING (E) (Elective III)

Time: 3Hours Max.Marks:100

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PART –A

Answer all questions, each carries 2 marks

1. Compare object oriented programming with procedure oriented programming.
2. Explain storage classes.
3. Write the difference between structure and union.
4. What is the use of scope resolution operator?
5. What do you mean by “this pointer”?
6. Point out the use of a friend function.
7. Define run time polymorphism.
8. Explain class templates.
9. Distinguish between errors and exceptions.
10. Explain bubble sort. (10x2=20 Marks)

PART –B

Answer any one full from each module, each carries 20 marks

**Module-1**

11. a) What is an inline function? What are its advantages? Give an example. (10)

    b)Describe the difference among passing an array to a function by using cal by value, call by address and using call by reference by writing the relevant C++code. (10)

12. a) Distinguish between the following terms: (i) object and classes (ii) inheritance and polymorphism (iii) Data abstraction and data encapsulation. (10)
    b) Write a program to find the factorial of n numbers using function recursion. (10)

**Module-2**

13. a) Define a class to represent a bank account. Include the following members :
    **Data members**: (i) Name of the depositor (ii) Account number (iii) Type of account (iv) Balance amount in the account

    **Member functions**: (i)To assign initial values (ii)To deposit an account (iii)To withdraw an amount after checking the balance (iv)To display name and balance

    Write a main program to test the program. (12)

    b) Write a short note on type conversion. (8)

14. a) Explain dynamic allocation of memory in C (8)

    b) Write a program that reads a group of numbers from the user and place them in an array of type float. Once the numbers are stored in the array, the program should average them and print the result. Use pointer notation where possible. (12)

**Module-3**

15. a)What is a constructor? How do we invoke constructor function? Explain its characteristic of constructor function? (10)

    b) Explain the concept of virtual function with an example program? (10)

16. a)What is the difference between function overloading and function over riding. (10)

    b) Explain the different types of inheritance supported by C++. (10)

**Module-4**

17. a) Write a program that copies a text file. In the process, reverse the case of all letters.(10)

    b) Write a note on file processing in C++. (10)

18. a) Define open (), close (), read (), write () functions in files with examples. (10)

    b) Write a program for performing binary search. (10)