

4E 2090

Roll No. _____

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B.Tech. IV Semester (Back) Examination, June/July - 2015

Electronic Inst. & Control Engg.

4E16.1 (Elective) Object Oriented Programming

(Common for Electronics & Comm. For BM, AI)

And EI & C Engg. Branch)

Time : 3 Hours

Maximum Marks : 80

Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five** questions, selecting **one** question from **each** unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Unit - I

1. a) How does object oriented programming differs from procedure oriented programming (8)
- b) What is object oriented programming define class? Object with example. (8)

OR

1. a) Explain the use of public, private & protected access specifier (8)
- b) What is inheritance? Explain the types of inheritance in detail (8)

Unit - II

2. a) What are the difference between constructors & destructors (8)
- b) What is a virtual function? Why do we need virtual functions? Explain (8)

OR

2. a) What is operator overloading? State the rules to be followed for overloading operators (8)
- b) What is friend function in C++? What are the risks associated with the use of friend function (8)

Unit - III

3. a) Explain the Java applets with a suitable example (8)
b) What is java define all the features of java (8)

OR

3. a) Write a java program to find the factorial of a given no using recursion (8)
b) Explain the virtual machine? Also write the advantages of virtual machine (8)

Unit - IV

4. a) Explain the following with suitable example (4×2=8)
i) Bit wise operator
ii) Ternary operator
b) Write a program in Java to sort a integer array (8)

OR

4. a) Write a java program to find the sum of the following series
 $\text{Sum} = 1 + x + x^2 + x^3 + \dots + X^n$ (8)
b) Write a program in java to print series of Fibonacci number (8)

Unit - V

5. a) Write the method to define the packages in java programs explain (8)
b) What is the difference between abstract class? Interface (8)

OR

5. Write short notes on:- (any two)
i) Exception handling
ii) packages access protection
iii) Input & Output flags & formatting operations (4×4=16)