

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV EXAMINATION – WINTER 2015

Subject Code: 140704**Date:06/01/2016****Subject Name: Object Oriented Concept and Programming****Time: 02:30pm to 05:00pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Define object oriented programming and explain its features. **07**
(b) Explain friend function with example. Also write advantage of using it. **07**

Q.2 (a) Define Inheritance and explain types of inheritance. **07**
(b) Explain functional modeling with example. **07**

OR

(b) Explain link, association and multiplicity with example. **07**

Q.3 (a) Explain object oriented methodology and themes. **07**
(b) Explain copy constructor with example. **07**

OR

Q.3 (a) Explain dynamic modeling with example. **07**
(b) Explain function overloading and constructor overloading with examples. **07**

Q.4 (a) Explain virtual function and abstract class with example. **07**
(b) Attempt following questions: **07**
i) Aggregation v/s Generalization.
ii) Constructor v/s Destructor.

OR

Q.4 (a) Attempt following: **07**
i) Explain Inline function with example.
ii) Differentiate order and sequence.
(b) What is type conversion. Explain various type conversion with example **07**

Q.5 (a) Draw state diagram for phone call. **07**
(b) Write a program to overload < (less than) and >(greater than) operator. **07**

OR

Q.5 (a) Draw data flow diagram for banking system. **07**
(b) Write a program to find area of Rectangle and Square by creating function **07**
find_area() using function overloading.
Note: Area of Rectangle=(Length*Width) and
Area of square=(Length*Length)
