(Following Paper ID and Roll No. to be filled in your Answer Book,

PAPER ID : 2166   **Roll No.** [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

B.Tech.

(SEM. V) ODD SEMESTER THEORY EXAMINATION 2013-14

OBJECT ORIENTED TECHNIQUES

Time : 3 Hours   *Total Marks : 100*

Note :–Attempt **all** questions.

1. Attempt any **four** questions :   **(5×4=20)**

 (a) Explain the major features of Object Oriented Programming.

 (b) What is the difference between procedure based programming language and object oriented programming language ?

 (c) What do you understand by object identity ? Explain with an example ?

 (d) What are the principles of modeling ? What is the importance of modeling ?

 (e) What is UML ? Mention the different kinds of modeling diagrams used.

 (f) Explain use case with example. How are the diagrams divided ?

2. Attempt any **four** questions : (5×4=20)

   (a) Explain class and object diagrams with examples.

   (b) Explain polymorphism, iterated messages and use of self in message in collaboration diagram.

   (c) Explain sequence diagrams with example.

   (d) What do you understand by callback mechanisms ?

   (e) What do you understand by basic behavioural modeling ?

   (f) What are package diagrams and why are they used ?

3. Attempt any **two** questions : (10×2=20)

   (a) What are the three models in OMT ? How is the object oriented analysis and design attached with OMT ? Explain with an example.

   (b) Describe documenting design considerations. How do we perform adjustment of inheritance ?

   (c) Write short notes on :

   (i) SA/SD and JSD

   (ii) Procedural v/s oop.

4. Attempt any **two** questions : (10×2=20)

   (a) What is abstraction ? Explain abstract method and abstract class. Write a Java program for employee class where salary as an abstract method with full implementation.

   (b) Explain Multithreading in Java. What is the effect in program when we use multithreading in a program. Write a Java program for $z = \sin(x) + \cos(y)$ using multithreading.

   (c) Write short notes on :

   (i) Event Handling

   (ii) EJB.

5. Attempt any **two** questions : (10×2=20)

   (a) What is applet ? Explain life cycle of an applet with methods declaration. Write a Java program which shows a House.

   (b) Explain swing. What is the role of layout managers in swing ? Write a Java program whcih shows swing application.

   (c) Write short notes on :

   (i) JDBC

   (ii) Servlet.