

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

**PAPER ID : 2166**

Roll No.

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**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 which shows swing application.

(c) Write short notes on :

(i) JDBC

(ii) Servlet.