

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

**PAPER ID : 1069**

Roll No.

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**B.Tech.**

(SEM IV) EVEN SEMESTER THEORY EXAMINATION,  
2009-2010

**OBJECT ORIENTED SYSTEM**

Time : 3 Hours

Total Marks : 100

**Note :** (i) Attempt **ALL** the questions.

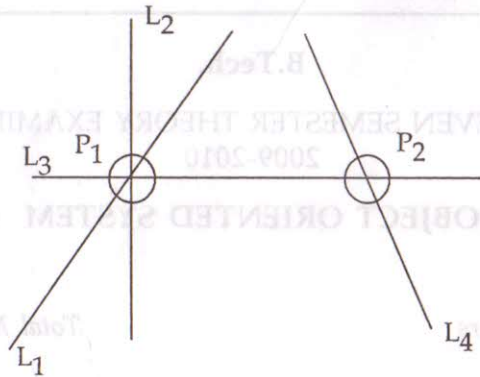
(ii) All questions carry **equal** marks.

1. Attempt any four parts of the following : 4x5=20

- (a) What is the difference between object and instance ?
- (b) Describe the various elements of Data flow diagram with suitable example and their graphical representation.
- (c) How are the three models of OMT related to each other ?
- (d) Differentiate between Association and Aggregation.
- (e) Explain all the steps of Jackson Structured Development (JSD).
- (f) Define the following :
  - (i) Multiple Inheritance
  - (ii) Meta data

2. Attempt any four parts of the following : 4x5=20

- (a) Draw Class diagram and Instance diagram to show many to many association and links in the following figure :



L<sub>1</sub>, L<sub>2</sub>, L<sub>3</sub>, L<sub>4</sub> are instances line class and P<sub>1</sub>, P<sub>2</sub> are instances of point class.

- (b) What is concurrency ? Explain with suitable example.
- (c) Describe how actions are categorized and represented giving example in each case ? Draw a diagram showing various actions on transition of a lift door.
- (d) Can a class have more than one constructor ? If yes then how ?
- (e) What do you mean by nested state diagram ? Explain.
- (f) What do you mean by dynamic model ? Explain with example.

3. Attempt any four of the following : 4x5=20

- (a) Write short notes on :  
 (i) Invariant (ii) Levelling
- (b) What is the relationship and difference between OOA and OOD.

- (c) Explain the layered architecture schemes for decomposition of system into subsystem.
- (d) What is an exception ? Discuss how exception handling is done in JAVA language ?
- (e) Prepare a data flow diagram for computing the volume and surface area of a cone. Inputs are height and radius of cone. Outputs are volume and surface area.
- (f) Differentiate between SA/SD and JSD methodology.

4. Attempt any two parts of the following : 2x10=20

- (a) Write short notes on :  
 (i) String Handling  
 (ii) Applet life cycle  
 (iii) Layout manager  
 (iv) Identifier
- (b) Discuss JDBC. Illustrate the different types of drivers of JDBC with their working.
- (c) Prepare a Scenario and Event trace Diagram of a Telephone line.

5. Attempt any two parts of the following : 2x10=20

- (a) Discuss the various methods available in Dynamic Billboard applet.
- (b) Define Java Beans and its advantages. What are the steps required to be followed to create a new bean ?
- (c) Discuss the various features of Lavatron Applet.

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