TCS-403

| (Following Paper ID and Roll No. to be filled in your Answer Book) | | | | | | | | | |
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| PAPER ID: 1069 | Roll No. | | | | 1 | - | | | |

B.Tech.

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

OBJECT ORIENTED SYSTEM

Time: 3 Hours Total Marks: 100

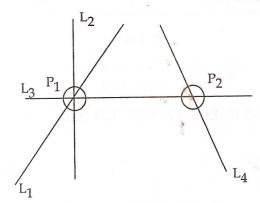
Note: (i) Attempt ALL the questions.

- (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

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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_1 , L_2 , L_3 , L_4 are instances line class and P_1 , P_2 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 O⊚D.

- (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.