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

PAPER ID : 1069   **Roll No.** [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

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_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 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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