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Con. 5525–10.   (REVISED COURSE)   **GT-6792**

(3 Hours)   **[Total Marks : 100**

N.B. : (1) Question No. **1** is **compulsory**.

      (2) Draw **neat** diagrams.

      (3) Elaborate with examples.

      (4) Solve any **four** from the rest.

1. Perform the domain analysis for the airline reservation system. Develop use case   **20**
and object model. Apply design patterns from java to implement an application.
Document each design pattern used in proper format. Finally convert major object
in the problem domain into database.

2. (a) Explain the principles for good design.   **10**

    (b) Explain the guidlines for writing formal test cases and test plans.   **10**

3. (a) Explain the techniques for gathering requirements ? How to analyse them ?   **10**

    (b) What are nonfunctional requirements that affects quality, environment and technology   **10**
of the system ? How ?

4. (a) Develop a usecase diagram for library management system. Document each   **10**
usecase in proper format.

    (b) Explain the principles of usability.   **10**

5. (a) Explain the guidlines in developing GUI for an application. Implement library   **10**
system GUI using java.

    (b) Elaborate on Architectural patterns, Design patterns and Frameworks.   **10**

6. (a) Explain the terms : Usability Testing, User Satisfaction Testing, Quality   **10**
Assurance Testing.

    (b) Explain rational unified process.   **10**

7. (a) Explain the types of design patterns.   **10**

    (b) Develop object model for ATM application.   **10**