

(3 Hours)

[Total Marks : 100

- N.B. :** (1) Question No.1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.

1. The TJSB Bank client must be able to deposit an amount to and withdraw an amount from users account using the bank application. Each transaction must be recorded, and the client must have the ability to review all transactions performed against a given account. Recorded transaction must include the date, time, transaction type, amount and balance amount after the transaction. Construct Activity Diagram and use Case Diagram. 20

2. (a) Explain the following terms :- 10
 - (i) Abstraction
 - (ii) Generalization
 - (iii) Association
 - (iv) Role Names
 - (v) Aggregation.
- (b) Explain usability testing and user satisfaction testing. 10

3. (a) What is the difference between Specialization and Generalization ? Explain with the help of example. 10
- (b) State different types of coupling and cohesion ? Explain types of coupling and cohesion. 10

4. (a) Construct sequence diagram for withdrawing money from ATM machine. 10
- (b) Draw class diagram for Hotel Management System. 10

5. (a) Construct usecase diagram for Hospital Management System. 10
- (b) What is Deployment Diagram ? What are the elements used in Deployment Diagram ? Explain each. 10

6. (a) Explain Architectural patterns and Design patterns. 10
- (b) For the Tit-Bit Pizza develop statechart diagram for the following classes :- 10
 - (i) Customer
 - (ii) Employee
 - (iii) Pizza Type
 - (iv) Order
 - (v) Payment.

7. (a) Construct component diagram for Online Railway Reservation System. 10
- (b) What is Requirement ? What are the techniques for Gathering and Analyzing requirement ? 10