Note: Answer FIVE full questions, selecting ONE full question from each unit.

UNIT - I

1 a. Write a short note on: i) Specialization   ii) Polymorphism.   10

   b. With a neat diagram, explain the lightweight process along with the steps.   10

2 a. Explain the following with an example:

   i) Use-Case diagrams   ii) Collaboration diagrams   10

   iii) Sequence diagrams   iv) Activity diagrams

   b. Explain the composite aggregation of objects and shared aggregation with a neat diagrams.   10

UNIT - II

3 a. What is mandatory profile? Show the parameterized constructor for the proper initialization of the class attributes.   10

   b. Write Use-Case diagrams for the following Bank Services:

   i) Create a Bank object   ii) Create a New Account   10

   iii) Perform a transaction on an Account   iv) Obtain the total assets of the bank

4 a. Briefly explain the class diagram, activity diagram and sequence diagram for library application.   10

   b. Establish Use-Cases and Test cases for Library application.   10

UNIT - III

5 a. Write a short note on: i) Inherited methods   ii) Redefined methods.   10

   b. Explain the following with a class diagram:

   i) Abstract class   ii) Interface class   10

6 a. Establish Use-Cases, analysis and design for library application.   10

   b. Architectural code and testing for library application.   10

UNIT - IV

7. Write a short note on,

   i) Menu bar   ii) Application menus   20

   iii) Application buttons   iv) Dialogs

8 a. Graphical Applications are event driven. Justify.   10

   b. Write a short note on,

   i) Swing   ii) Refactoring   10

UNIT - V

9 a. Explain the steps to implement a forward-receiver design pattern.   10

   b. Explain the steps to implement a client-dispatcher server with a class diagram.   10

10 a. Explain the steps to implement View-Handler design pattern with OMT class diagram.   10

   b. Write a short note on :

     i) Idioms and styles   10

     ii) Counter pointer

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