



**Unit – II**

4. a) Explain the general process model of the elicitation and analysis process with the diagram.  
b) Explain the dataflow diagram of order processing. (6+6)
5. a) Write a note on :  
i) State-machine model  
ii) Object model  
b) Explain the components of a CASE tool for structured method support with a diagram. (6+6)

**Unit – III**

6. a) What is shared repository model ? Write the advantages and disadvantages.  
b) Explain architectural design with an example. (6+6)
7. a) Explain client-server model with an example diagram.  
b) List and explain four essential elements of design patterns. (6+6)

**Unit – IV**

8. a) Explain V model (planning Verification and Validation) with diagram.  
b) Explain the various approaches involved in test case design. (6+6)
9. a) What are the different components that are tested in unit testing ?  
b) Explain steps involved in bottom-up integration testing.  
c) Explain structural testing. (4+4+4)
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