

**Unit 1 Introduction**

**Short Questions (2 to 4 marks)**

1. Define software
2. Compare software and hardware
3. Define software engineering

**Long Questions(5 to 10 marks)**

1. Explain characteristics of software with diagram

**Unit 2 Software Engineering**

**Short Questions (2 to 4 marks)**

1. Game playing is the representation of which kind of software? Why?
2. What are called umbrella activities?
3. "Project requirements continually change, but change can be easily accommodated because software is flexible" which type of myth it is? Explain.

**Long Questions (5 to 10 marks)**

1. Explain Generic view of SE
2. What are software myths
3. Explain any three customers and management myths
4. Explain software Application

**Unit 3 Software Process Models**

**Short Questions (2 to 4 marks)**

1. Why does the waterfall model fail sometimes?
2. Compare waterfall model with prototype
3. What is software process model?
4. Define prototype
- 5.

**Long Questions (5 to 10 marks)**

1. Explain prototype model. Also state its advantages and disadvantages.

2. Explain waterfall model with its advantages and disadvantages OR Write limitations of waterfall model OR Explain linear sequential model with its advantages and disadvantages.
3. List out the circumstances under which you recommend the prototyping should be used What are the difficulties that might arise when using that approach?
4. Define software process model Also compare and contrast waterfall model and prototype model.

#### **Unit 4 Requirement Analysis**

##### **Short Questions (2 to 4 marks)**

1. What is requirement gathering? List various techniques of requirement gathering
2. What is context level diagram?
3. What is importance of requirement specification?
4. What do you mean by problem analysis?
5. What is current application analysis?
6. List out roles of system analyst
7. What is fact finding?
8. What is process specification?
9. Write about requirement process
10. Explain QFD
11. What is Data Dictionary?
12. What is Bubble chart?
13. Comment: DFD is meaningless for object oriented approach
14. What do you mean by software quality?
15. Compare DFD with Flowchart
16. Give advantages of Interview over Questionnaire

##### **Long Questions (5 to 10 marks)**

1. What is SRS? Explain its characteristics
2. What is feasibility study?
3. Explain Requirement Analysis and Current Application Analysis. List out roles of System Analyst
4. Explain components of SRS
5. Explain Requirement Gathering Techniques
6. Explain Data Dictionary
7. Explain Elements of Analysis Model
8. What is Requirement Review.

9. Explain any one Requirement Elicitation Process
10. What is QFD? Write its importance
11. Explain SRS needs in detail
12. Define Problem Analysis. Explain Analysis model with diagram
13. Explain logical and physical DFD
14. Explain FAST
15. What is DFD? Explain various symbols of DFD. Give its relation with process specification.
16. Explain questionnaire and record review techniques
17. Explain rules of DFD
18. DFD super market stock system
19. DFD Air ticket reservation system
20. DFD online shopping system
21. DFD Hospital management system
22. DFD Inventory management system
23. DFD Library management system
24. DFD Banking system
25. DFD Insurance Agency System
26. DFD show room dealing system
27. DFD Railway reservation system

#### Unit 5 System Design

##### Short Questions (2 to 4 marks)

1. What is functional independence?
2. Give the relation between coupling and cohesion
3. Explain Modelling
4. Explain Detail and System Design
5. Explain Modularity and Integration. Where are they observed?
6. What is Divide and Concur Rule?
7. Define Fan in and Fan out
8. What is Perfective Maintenance?
9. What is Forward Traceability?
10. What is Temporal Cohesion?
11. What is vertical partitioning?
12. What is software architecture?
13. What is functional abstraction? Give example
14. What is cardinality?
15. What is pancake structure?

16. What is preventive maintenance?
17. Write down highest level of coupling types
18. Define external coupling
19. Define corrective maintenance
20. What is Data abstraction? Give example
21. Define coincidental Cohesion
22. What is procedural abstraction?
23. Define structure partitioning

**Long Questions (5 to 10 marks)**

1. Explain types of Cohesion
2. Explain structured design methodology
3. What is module and sequence? Explain design concepts
4. Write a note on system design
5. Define coupling. Explain its types
6. Explain design model and its principles
7. Explain design documentation structure in detail OR Outcome of Design phase
8. What is difference between Analysis and Design? Can anyone begin to design without analysis? Justify
9. Write a note on design concepts
10. Explain structured partitioning
11. What is the significance of design phase?
12. Write a note on partitioning
13. Explain translation /transition of analysis model into design model
14. Which software development phase is more significant to achieve quality? Justify
15. Explain design heuristic
16. Explain Modularity in detail
17. Define control hierarchy. Also explain different types of partitioning
18. Write down criteria / measures for effective modular design
19. Explain different types of modules
20. Explain design principles
21. What is software design? Explain different types of design