

Question Bank

CE4013 - Software Engineering

UNIT - 3

1. Describe elements of the requirement model.
2. Explain flow oriented software modeling.
3. Discuss the process of building the requirement model.
4. Explain association and dependencies with an example.
5. Discuss concepts of data modeling.
6. Enlist and explain any three principles that guide the software engineering practice.
7. Discuss requirement analysis with its importance.
8. Explain elaboration and negotiation in terms of requirement gathering taking an appropriate example.
9. Explain and describe construction principles.
10. Explain class based modeling with an appropriate example.
11. Discuss quality function deployment.
12. Discuss specification and validation of requirements with an appropriate example.

UNIT - 4

13. What is a component in software? Describe with an example.
14. State and describe basic design principles.
15. Describe component level design for web applications.
16. Describe class based component design.
17. Describe component level view of object-oriented design.
18. Enlist any four advantages of component level design.
19. Describe application accessibility in context of user interface.
20. State and define three golden rules for interface design.
21. Compare Coupling and Cohesion. Explain different types of Coupling and its effects on software modules.
22. Discuss design principles of component level software design.

- 23. Describe user level analysis of software interface design.
- 24. What is interface analysis? What is the significance of interface analysis?
- 25. Explain interface design evolution cycle.
- 26. Describe design issues in user interface design.
- 27. Describe layer cohesion in object-oriented systems.
- 28. State and describe any two views of software components.

UNIT - 5

- 29. Explain the need for pattern based software design.
- 30. Explain user interface design patterns.
- 31. Describe design patterns with its needs.
- 32. Describe various layout issues in design of web applications.
- 33. Explain MVC architecture in detail.
- 34. Write a short note on pattern languages and repositories.
- 35. Describe design focus and design granularity in web application design patterns.
- 36. Explain navigation semantics with an example of web application.
- 37. Explain pattern based software design with an example.
- 38. Draw and explain design pyramid for web applications.
- 39. Discuss the concept of Object Oriented Hypermedia Design Method (OOHDM).
- 40. Explain various design tasks in pattern based software design philosophy.

UNIT - 6

- 41. Discuss software review techniques.
- 42. Explain various levels of software testing.
- 43. Differentiate White Box Testing & Black Box Testing.
- 44. Define debugging and discuss debugging strategies.
- 45. Differentiate Unit Testing and System Testing with an appropriate example.
- 46. Explain McCall's quality factors.
- 47. Discuss software testing strategy in context of spiral approach.
- 48. Describe various approaches for testing client-server applications.
- 49. Explain top-down and bottom-up integration testing with an example.

- 50. Discuss control structure test strategies.
- 51. Explain software quality dilemma.
- 52. Describe the six sigma strategy for quality assurance.
- 53. Explain Garvin's quality dimensions
- 54. Discuss various elements of software quality assurance.
- 55. Explain ISO 9000 quality standards.

BOOK : Roger S. Pressman - "Software Engineering – A Practitioner's Approach", 7th Edition, McGrawHill.

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