SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
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QUESTION BANK (DESCRIPTIVE)

Subject with Code : Software Engineering (16MC819)　　**Course & Branch**: MCA

Year & Sem: II-MCA & II-Sem　　　　　　　　　　**Regulation:** R16

Unit 1

1. a) Describe the nature of Software.　　　　　　　　　　　　　　　　　[6M]

    b) Describe the Layered Technology of software engineering.　　　　　　[6M]

2. a) Explain the levels in CMMI Model.　　　　　　　　　　　　　　　[6M]

    b) Explain the Essence & Principles of Software Engineering.　　　　　　[6M]

3. a) Describe Software Myths in detail.　　　　　　　　　　　　　　　[6M]

    b) What is Process Patterns and explain them?　　　　　　　　　　　　[6M]

4. a) Explain the importance of evolutionary process models　　　　　　　[6M]

    b) What is CMMI and its advantages?　　　　　　　　　　　　　　　　[6M]

5. a) What are the customer myths and describe them?　　　　　　　　　　[6M]

    b) Explain Water fall model in detail.　　　　　　　　　　　　　　　　[6M]

6. a) What is Prescriptive Process Model and explain it clearly?　　　　　[6M]

    b) Explain RAD Model.　　　　　　　　　　　　　　　　　　　　　[6M]

7. a) Describe Incremental Process model.　　　　　　　　　　　　　　　[6M]

    b) Explain spiral model with suitable example.　　　　　　　　　　　　[6M]

8. a) Explain Evolutionary process model.　　　　　　　　　　　　　　　[6M]

    b) What is Agile development and explain them?　　　　　　　　　　　[6M]

9. a) Explain Unified Process Model.　　　　　　　　　　　　　　　　　[6M]

    b) Describe the aspect oriented software development.　　　　　　　　　[6M]

10. a) Explain Agile process with suitable example.　　　　　　　　　　　[6M]

    b) What is Extreme programming?　　　　　　　　　　　　　　　　　[6M]

Unit 2

1. a) Explain functional and non-functional requirements.　　　　　　　　[7M]

    b) Describe the importance of requirement modeling.　　　　　　　　　[5M]

2. a) Explain requirements engineering activities.   [6M]

    b) Describe the importance of SRS?   [6M]

3. a) What is eliciting requirements in software engineering?   [6M]

    b) What is the procedure for SRS document process?   [6M]

4. a) List the steps of project estimation?   [6M]

    b) Explain empirical estimation models.   [6M]

5. What are the steps required to establish the groundwork for understanding of software

    requirements?   [12M]

6. a) What is eliciting requirements? Explain.   [6M]

    b) Explain the steps in developing uses cases.   [6M]

7. a) Explain requirements modeling process.   [6M]

    b) Explain ground work analysis   [6M]

8. a) Explain Web App based modeling   [6M]

    b) What is class based modeling?   [6M]

9. Explain the steps in the developing use cases.   [12M]

10. a) Explain the process of requirements validation   [6M]

    b) What are the elements of requirements of modeling?   [6M]

Unit 3

1. What are the software quality guidelines and attributes used in software design?   [12M]

2. a) List out the golden rules for interface design?   [6M]

    b) Explain all the design issues.   [6M]

3. a) Write a short notes on interface design steps?   [6M]

    b) Explain the process in user interface design?   [6M]

4. a) How can analysis and principles of interface design?   [6M]

    b) Explain pattern based design.   [6M]

5. a) Give brief taxonomy of Architectural styles   [6M]

    b) Explain architectural patterns.   [6M]

6. a) Explain software design strategies and complexity   [6M]

    b) Explain the importance of user interface design patterns.   [6M]

7. a) Explain the interface design patterns.   [6M]

    b) Describe the principles of component level design patterns.   [6M]

8. a) Discuss about architectural patterns with suitable examples?   [6M]

    b) What are the software design concepts?   [6M]

9.   a) Briefly explain golden rules user interface design?   [6M]

    b) Explain the method of class based designing?   [6M]

10.   a) Explain the advantages of design patterns.   [6M]

    B Explain Object oriented design concepts   [6M]

Unit 4

1. What are the software quality guidelines and attributes?   [12M]

2. Briefly describe software testing strategies?   [12M]

3.   a) Explain unit testing with examples?   [6M]

    b) Describe object oriented software testing methods?   [6M]

4   a) Explain integration testing with examples.   [6M]

    b) What is validation testing?   [6M]

5.   a) Explain the importance and principles of testing.   [6M]

    b) Compare unit testing and integration testing.   [6M]

5.   a) What is system testing and explain it clearly?   [6M]

    b) Explain the importance of debugging.   [6M]

6. Compare black box testing and white box testing?   [12M]

7.   a) Briefly explain basis path testing?   [6M]

    b) Explain conditional testing.   [6M]

8.   a) Explain loop testing and its advantages.   [6M]

    b) Explain the importance of Black box testing.   [6M]

9. What are the black box testing methods? Explain.   [12M]

10.   a) Describe the boundary value analysis   [6M]

    b) Discuss about basis path testing methods?   [6M]

UNIT V

1.   a) List out the umbrella activities?   [6M]

    b) Explain software quality assurance.   [6M]

2.   a) Write a short notes on software configuration management?   [6M]

    b) Explain the process measurement and metrics?   [6M]

3.   a) How can analysis the size oriented metrics?   [6M]

    b) Explain function oriented metrics.   [6M]

4.   a) Describe the metrics for software quality?   [6M]

    b) Explain product metrics and its importance.   [6M]

5. a) Explain metrics for requirements model?   [6M]

    b) Explain the metrics for the design model.   [6M]

6. a) Explain the metrics for source code.   [6M]

    b) Describe the metrics for testing.   [6M]

7. a) Discuss about the maintenance for metrics?   [6M]

    b) Explain the importance of software reengineering?   [6M]

8.   a) Briefly explain activities in software reengineering ?   [6M]

    b) What are the software reengineering activities?   [6M]

9.   a) Describe the importance of software quality assurance.   [6M]

    b) Briefly describe the umbrella activities?   [6M]

10. a) Explain the importance of software configuration management.   [6M]

    b) List out the importance of measurements and metrics?   [6M]

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