

## Chapter : 5

## Software Management and Maintenance Technique(Questions)

- ✓ 1. What is software maintenance? (2010,2012,2014,2016,2017,2018)
- ✓ 2. Discuss the various types of software maintenance. (2012,2014,2016,2017)
3. What is the objective of maintenance? (2018)
4. Explain maintenance process in software engineering. (2010)
- ✓ 5. Write short note on software configuration management. (2013,2014,2015)
6. Distinguish between configuration management and change management. (2011,2013)
7. What is CCB? (2011)
8. What are the tasks of configuration control board ? (2010)
9. What is meant by software costing and software pricing? (2010)
- ✓ 10. Write short note on software cost estimation technique. (2010,2011,2013)  
Or, Discuss about different types of software cost estimation technique. (2014,2016)
11. Explain how cost estimation can be achieved using function point method. (2011,2013)
- ✓ 12. State the COCOMO model. (2010,2013,2017,2016)
13. Discuss in detail about the basic COCOMO model in cost estimation of the S/W. (2012)
- ✓ 14. Write short note on CASE. (2009,2011,2012,2013,2016,2018)
- ✓ 15. Mention CASE tools with a brief description. (2009)
- Or, Show with diagram the building blocks of CASE. (2009,2012,2014,2018)
- ✓ 16. What is SQA ? (2013,2014,2015,2017,2018)
- ✓ 17. Write the responsibilities of a SQA group. (2014,2017,2018)
19. Describe S/W quality factors according to McCall. (2010,2015)
20. What are the factors affecting software pricing ? (2013,2018)
- ✓ 21. Write short note on software re-engineering. (2009,2017)
22. Explain software re-engineering process activities with figure. (2013)
22. Explain software re-engineering process activities with figure. (2013)
23. Distinguish between re-engineering and reverse engineering. (2013,2018)
24. Write short note on software reuse. (2014,2017)
25. What is 40-20-40 rule in software engineering? (2010)
- ✓ 26. Write down the guidelines of FTR(Formal Technique Review). (2013,2015)
- ✓ 27. Distinguish between walkthrough and review. (2010,2017)



## Chapter : 4

**Software testing technique and strategies**

1. What is testing?
- ✓ 2. What is the objective of testing?(2009,2012,2013,2018)
- ✓ 3. What is software testing strategy?(2011,2012,2018)
4. Explain different testing strategy in brief.(2009)
5. Briefly describe different types of test.  
Or, Describe the basic path of testing.(2009)
- ✓ 6. What are the testing principles the software engineering must apply while performing the software testing (2012,2013,2017,2018)
7. What are the boundary value problem.(2014)
- ✓ 8. Define debugging.(2011,2012,2016,2018)
- ✓ 9. What are the common approaches in debugging?(2012,2016,2018)
10. Describe the checklist software testability.(2013)
- ✓ 11. What do you mean by white-box-testing?(2009,2015,2018)
- ✓ 12. Define black box testing.(2010,2012,2015,2018)
13. What are reason behind performing white box testing?(2012)  
Or, what re reason behind perform white box testing and black box testing?(2014)
14. What do you mean alpha and beta testing?(2014)
- ✓ 15. Write short notes on:
  - ✓ Software error and faults.(2009)
  - ✓ Integration testing.(2010)
  - ✓ Top down and bottom up integration testing.(2013,2017)
  - ✓ Loop testing.(2010,2011,2016)
- ✓ 16. Why verification and validation is important in testing?(2011,2014,2018)
17. What are the conditions that exist after performing validation testing?(2014)
- ✓ 18. Distinguish between white box testing and black box testing.(2011,2013,2015,2016)
19. Distinguish between alpha and beta testig.(2009,2012)
20. Distinguish between unit and module testing.(2009)
- ✓ 21. Distinguish between validation and verification.(2012,2014,2018)
22. What is cyclomatic complexity?(2014,2016)
23. How to compute the cyclomatic complexity?(2014,2016s)
24. Calculate the cyclomatic complexity gor the greatest three numbers.(2010)
25. What are the guidelines for equivalence partitioning?(2013)



## Chapter : 3

# Software design fundamentals

1. State the definition of software architecture and software design. (2010)
2. Explain design process with diagram.  
Or, Describe logical construction of design. (2011)
- ✓ 3. What do you mean by design process? (2011)  
Or, define software design process. (2014,2018)
4. What are the objective of software design? (2013)
- ✓ 5. What are the guideline for a good software design process? (2009,2015)  
Or, what re the guidelines that will lead to a good design? (2012,2017)
6. Describe procedural design with diagram. (2011)
- ✓ 7. How do we transform an informal design to a detailed design? (2013,2017)
8. How is software design different from coding? (2013)
9. What are the concept of following design pattern when coding? (2009)
10. Mention and briefly discuss some of the software design principles. (2010,2012)  
& What are the factors for effective module design? (2014)  
& Define cohesive and coupling in context of modularity. (2009)
- ✓ 11. & Discuss about different types of coupling in the context of s/w design. (2012,2014)  
& Discusss about different types of cohesion in the context of software design. (2013)
12. What problem arises if two modules have high coupling? (2013)
13. Distinguish between cohesion and coupling (2018)
- ✓ 14. Write short note on object oriented software engineering. (2009,2012,2013,2017)  
& Explain various object oriented concept used in software engineering (2014)
- ✓ 15. Explain different type of design principles of software. (2012,2014)  
& Differentiate horizontal and vertical partitioning. (2012, 2017)



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## Chapter : 2

### Requirements Analysis fundamentals (Questions)

- ✓ 1. Define requirements engineering. (2011,2018)  
& what are the different types of user requirement process? (2012,2017)
- ✓ 2. What is the functional and non-functional requirement of software engineering? Explain. (2010,2017,2018)  
& List some non-functional requirements of software and describe them. (2014)  
& Explain the functional and nonfunctional requirements of software engineering process.
3. What do you know about software requirement specification? (2011)  
& write short note on software requirement specification. (2011)
4. Distinguish between requirement definition and requirement specification. (2012)
- ✓ 5. Define the term stakeholder and use case. (2013)
6. All stakeholder should be involved in requirement elicitation and analysis with figure. (2011,2013,2015)
7. Brief the process activities of requirement elicitation and analysis. (2014)
7. What are the factors considered in case of requirement validation? (2012)
8. Draw a use case diagram that depicts the structural requirements of a Library Management System. (2009)
9. Draw and explain a use-case diagram for an e-commerce system. (2018)
10. What is use case? Depict the online flight reservation system using use case diagram. (2018)



# Chapter -1

## Software Engineering Paradigms(Questions)

- ✓ 1. What is software engineering?  
or, Give the IEEE definition of software engineering. [2009,2011,2013,2014]
2. What do you mean by software quality? [2010,2012,2015,2018]
3. Classify the qualities of software. [2013]
4. List the characteristics of software quality. (2018)
5. State and explain some qualities that are used to access software. [2013]
- Or, State and explain four qualities that are used to access software. [2014]
- ✓ 6. Explain the attribute of a good software product. [2010]
7. What are the objectives of software engineering. [2012,2016,2017]
- ✓ 8. Mention the key challenges facing four qualities that are used to access software. [2011]
- ✓ 9. What is meant by software quality assurance? [2010,2017]
10. Discuss about the professional and ethical responsibilities of a software engineer. [2010,2013,2015]
11. Define agility and agile team. [2013]
12. Describe the principles of agile method. (2014)
- Or, write down the principles of agile process method. (2014)
- Or, write down the principles of agile process method. (2012,2013,2017)
13. What do you know about the software crisis? (2010)
14. Write short note on legacy software. (2013)
15. Write short note on CMM. (2013)
- & What is CMM? (2011)
- & State and explain process maturity level in SELs CMM. (2014)
- Or, Describe the five levels defined in the SEI process maturity model. (2011)
16. Distinguish between ISO 9000 and SEI CMM. (2010)



- ✓ 17. What are the difference between software engineering and system engineering? (1009,2011,2016,2018)
18. Distinguish between software engineering and computer science. (2011,2012)
19. Write short note on software prototyping. (2014,2018)
- Or, Describe prototyping process method. (2009)
- Or, Give a brief description of software prototyping and discuss various prptotyping techniques in a nutshell. (2011)
20. Distinguish between evolutionary prototyping and throw away prototyping. (2012,2014)
21. What is software engineering process? (2009)
22. Discuss generic view of software engineering. (2010,2016)
- Or, State and explain the generic activities followed in all software process. (2011)
23. What are the umbrella activities of software engineering? (2012,2014,2018)
24. Briefly describe each step of software development life cycle(SDLC). (2009,2016)
- ✓ 25. Explain waterfall model with merits and demerits. (2010,2012,2015,2016)
26. Explain incremental software process model with merits and demerits. (2013,2018)
27. Write short note on RAD software process mode. (2014)
- ✓ 28. Write the application of the evolutionary development model. (2010)
- Write short note on spiral model. (2012,2014,2015,2017)
29. Discuss rational unified process (RUP) model with meritss. (2011,2014)
30. Writeb short note on V & V software process model. (2013,2015,2016)