

21CS61(2021 Scheme) SIMP Questions

-RNSIT REVIEW TEAM.

SIMP Questions M1-M5

Note: Software engineering is a theory intensive subject which almost involves theory intensive and a lot of important topics

Understanding how these processes work and writing answers on your own is the key to scoring marks in this particular subject

Understand every question by referring to its answer on chatgpt or Online or TIE Notes by considering a real life example, Study 75% of these questions- These questions are framed by Professors from over 5 Colleges and have been combined to give you the most important topics

There are approx 8 questions per module, you can practice any 6/M

1. Explain the fundamental activities of generic software processes and explain generic process model
2. Explain the seven principles of software engineering practice proposed by david hooker
3. Explain the unique nature of web applications wrt development
4. Define process patterns? Explain the template for describing process patterns proposed by ambler
5. Explain component based software development and list the different steps that are undertaken during component based development
6. Define software as per fritz baur and IEEE? Explain the characteristics of software that are considerably different from those of hardware
7. Write a short note on spiral and concurrent model
8. Explain waterfall model, list the disadvantages of the same
9. Explain the different phases of unified process model

10. Explain the steps required to establish the groundwork for an understanding of software requirements
11. Explain requirement engineering wrt Inception, elicitation, Elaboration , Negotiation and Validation- Explain how negotiation and validating requirements works in detail-SRS(4+6)
12. Explain the process of requirement elicitation and the approaches involved with it
13. Explain requirement engineering? Explain briefly the seven tasks of requirement engineering
14. Explain different types of data modeling concepts with example
15. Explain the development of use-case with a diagram and mention its advantages?
16. Describe the following with Example a. Class Diagram b. Generalization
17. Draw a Sequence and UML diagram for SafeHome security function.
18. Draw an activity diagram for an ATM.
19. What is an Agile process? Write the principles to achieve agility.
20. Explain the extreme programming process (XP) with a neat diagram.
21. Explain Scrum process flow with a neat diagram.
22. What are the templates for defining a feature and explain the feature driven development process with a neat diagram.
23. Write short notes on (i)Principle that guides each frame and activity (ii)RDMP
24. Discuss the prototyping model. What is the effect of designing a prototype on the overall cost of the project?
25. Differentiate between top down and bottom-up design strategies.
26. Define a project? Explain the characteristics of projects.
27. What are the types of requirements? Explain ISO 12207 software development life cycle with a neat diagram.
28. Explain the functions of the object driven development process.
29. Discuss Test Driven Development(TDD) with its Process and list its benefits.
30. What is management? Explain the several key activities of software project management.
31. Discuss the importance of project planning. Show the principles of project management processes, With neat diagram explaining the project scheduling process.
32. Explain the project control cycle with a neat diagram.
33. Discuss software Quality and its attributes,explain process based quality of software.
34. Explain Software Evolution Process with neat block diagram
35. What are the key points of step wise framework explained with a neat diagram.

36. Briefly explain the product and process metrics.
37. Explain test closure and test automation with a neat diagram.
38. Explain the different SEI CMM levels.
39. Briefly explain ISO 9001:2000 process with its principles.

