

Q:1 Compare the waterfall model and the spiral model of Software development.

Q:2 Consider the problem of library management system and design the following

(a) Problem statement

(b) Use case

(c) Use case diagram

Q:3 Draw a DFD for borrowing a book in a library which is explained below: "A borrower can borrow a book if it is available else he/she can reserve for the books if he/she so wishes. He/She can borrow a maximum of three books".

Q:4 Define various requirement analysis steps.

Q:5 Suppose a user is satisfied with the performance of a prototype, If he/she is interested to buy this for actual work. What should be the response of a developer?

Q:6. Discuss the significance and use of requirement engineering. What are the problems in the formulation of requirements? Write down the various phases of requirement engineering.

Q:7. Define the purpose of feasibility study. Write some non-technical issues on which Feasibility Study depends.

Q:8. Describe the various steps of requirements engineering. Is it essential to follow these steps ?

Q:9. Explain the use case approach of requirements elicitation. What are use-case guidelines ?

Q:10. What are components of a use case diagram. Explain their usage with the help of an example.

Q:11. Explain the concept of function points. Why FPs are becoming acceptable in industry?

Q:12. What are various activities during software project planning?

Q:13. Discuss various types of COCOMO mode. Explain the phase wise distribution of effort.

Q:14. Do we design software when we "write" a program? What makes software design different from coding?

Q:15. What is modularity? List the important properties of a modular system.

- Q:16. Define module coupling and explain different types of coupling.
- Q:17. Define module cohesion and explain different types of cohesion.
- Q:18. Discuss the objectives of modular software design. What are the effects of module coupling and cohesion?
- Q:19. If a module has logical cohesion, what kind of coupling is this module likely to have with others?
- Q:20. What problems are likely to arise if two modules have high coupling?
- Q:21. Describe various strategies of design.
- Q:22. List out requirements elicitation techniques. Which one is most popular and why ?
- Q:23. Explain the COCOMO-II in detail. What types of categories of projects are identified?
- Q:24. What is design? Describe the difference between conceptual design and technical design.
- Q:25. Discuss the objectives of software design. How do we transform an informal design to a detailed design?