

## Principles of Software Engineering

- Q1. What are the characteristics of good software?
- Q2. Differentiate between product, project and process?
- Q3. What are software crisis?
- Q4. What do you mean by cyclomatic complexity?
- Q5. What are the phases of spiral model for software development?
- Q6. Why software engineering is required?
- Q7. Explain abstraction related to system design?
- Q8. What are different project size estimation metrics? What is meant by empirical estimation techniques?
- Q9. Explain various types of cohesion and coupling in detail. Which one is the best and which one is the worst among them in case of both cohesion and coupling?
- Q10. Differentiate between object-oriented and function-oriented design with their relative merits and demerits through a suitable simple problem of your choice.
- Q11. Describe the basic components of a DFD. Make a DFD to describe library information system.
- Q12. Differentiate between Data modeling and Functional modeling.
- Q13. Differentiate between validation and verification?
- Q14. Define Bug, Error, Fault, Failure and Defect?
- Q15. Explain Debugging Process and its approaches in detail.
- Q16. Explain various types of testing?
- Q17. Explain the complete architectural design process.
- Q18. What do you mean by executable and non-executable testing?
- Q19. What is the concept of computer Aided Software Engineering? Explain with an example.
- Q20. What is meant by software quality assurance? Explain.
- Q21. Explain the salient features of ISO 9001 requirements?
- Q22. How do you perform formal technical reviews?