CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF TECHNOLOGY AND ENGINEERING (FTE)

DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY AND RESEARCH

CE343: SOFTWARE ENGINEERING

QUESTION BANK : UNIT 3,8,10

1. Explain risk management process with suitable diagram in brief. List types of risk with example.

2. What is management spectrum? Describe the four P's briefly

3. **Define the following terms:**
   a. Milestone
   b. Fan-in
   c. Fan-out

4. What is verification and Validation? How they are different from each other?

5. Explain Boehm's W5HH Principle

6. What is a component? Explain object-oriented view of a component in brief. Explain the concept of Component based Software engineering (CBSE). Also explain the role of Agile (process model) in it. How is Agile differ from the other process model?

7. What do you mean by coding guidelines? Mention any 4 coding guidelines.

8. What do you mean by Configuration Management? How does it help to ensure high quality of a software product? What are the different types of documents that need to be developed or produced?

9. What do you mean by CASE? List out the benefits of CASE and CASE tools.

10. What are the software configuration management tasks? Define and discuss each of them.

11. Define the term: error, fault and failure and describe how they relate to each other.

12. What is the difference between a revision and a version? What do you mean by version control?

13. What do you mean by software maintenance? What are the different types of maintenance that a software product might need?

14. What do you mean by software reverse engineering? How to apply cosmetic changes on the code?

15. Define Reverse Engineering and Re-engineering. What are the main objectives of reverse engineering?

16. What do you mean by milestones and deliverables? What are the contents that are intended into the deliverable?

17. Name the risk-based software development process model. Compare its advantages and disadvantages in keeping eyes with all other methods.

18. Differentiate between Reverse Engineering and Re-engineering.

19. What is a risk? What are the risk management activities? What types of risks are likely to encounter as software is built? How would you identify the risks and how to contaminate risks from the project?

20. What are the activities of risk assessment?

21. What is project management plan? Explain the four major sections that form the software project management plan (SPMP)

22. Explain how the project manager would carry out the risk analysis? What would be the outcome of the risk analysis? How would the outcome of your analysis be used to manage the risk?

23. What is software maintenance? What are the three types of it?

24. Explain the concept of Component based Software engineering (CBSE). What are the essentials? What are the design principles?

25. Effective Software Project Management focusses on four spectrums. Enlist them in order and explain them. What are the characteristics of an effective project manager?

26. List out the types of software risks? What are the risk identification and risk avoidance?

27. List three common types of risks that a typical software project might suffer from. Explain how you can identify the risks that your project is susceptible to. Suppose that you are a project manager of a large software development project, point out the main steps you would follow to manage the risks in your software project.

28. What do you mean by Software configuration management (SCM)? Discuss the concept of version control as a software configuration management activity.

29. What do you mean by version control? What do you mean by Change control? What is the relationship between Software configuration management (SCM) and Software maintenance? Explain in brief.

30. Is it ethical for a software engineer to agree to deliver a software system with known faults to a customer? Does it make any difference if the customer is told of the existence of these faults in advance? Would it be reasonable to make claims about the reliability of the software in such circumstances?

31. Heavy maintenance and quality of software are inversely proportional. Elaborate. Why software maintenance is much more complex than hardware maintenance.

32. Quality, Reliability and safety are related concepts, but are fundamentally different in number of ways. Discuss. Also explain why software reliability always takes precedence over efficiency.