

# **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 3: UNIT 5**

1. Describe the different software architectural styles with diagrams.
2. Compare Coupling and Cohesion. Explain different types of Coupling and its effects on software modules
3. Compare the relative advantages of function oriented and object-oriented approaches to software design.
4. What is a “well-formed” design class? Mention the characteristics of the same.
5. What is User Interface? Explain the design rules for UI. Explain in detail the design issues while designing User Interface.
6. Explain how do we design interfaces that allow the user to maintain control?
7. Mention the architectural genres for software-based systems.
8. What is Software Architecture? Why is architecture important? List out different types of Architectural Styles. Explain any two in detail.
9. What is cohesion and coupling? Explain the classification of cohesion and coupling.
10. Explain testing of Web and Mobile applications.
11. What factors are considered during component qualification?
12. List out the different characteristics of good UI design. List the desirable characteristic that a good user interface should possess.
13. What is the goal of a software design?
14. Explain with a neat sketch that how to translate the requirements model into the design model.
15. With a neat sketch, draw the dimensions of the design model.
16. Briefly describe each of the four elements of the design model.
17. Mention the three key reasons that software architecture is important.
18. Differentiate between design and coding.

19. Justify the statement – Design is not coding and coding is not design.
20. Mention the Software Quality Guidelines and Attributes.
21. Discuss the relationship between the concept of information hiding as an attribute of effective modularity and the concept of module independence.
22. What characteristics are common to all design methods?
23. Are stepwise refinement and refactoring the same thing? If not, how do they differ?
24. What is the right number of modules for a given system?
25. What types of classes does the designer create?
26. What is a WebApp component?
27. Describe the four basic design principles applicable to component-level design.
28. What points should be kept in mind while naming the components?
29. What are the key characteristics of a component reuse environment?
30. Enlist and explain the golden rules of user interface design.
31. How do we learn what the user wants from the UI?
32. WebApp patterns can be categorized using the levels of design focus. Mention the levels.
33. How do we determine the format and aesthetics of content displayed as part of the UI?
34. Draw the Quality requirements tree.
35. What are the major attributes of quality for WebApps?
36. Draw and explain the design pyramid for WebApps.
37. Is there a set of basic principles that can be applied as you design a GUI?
38. What types of content architectures are commonly encountered?
39. What are some typical architectural pattern domains?
40. Draw and explain the MVC Architecture.

41. Define the following terms:

- a) Abstraction
- b) Architecture
- c) Patterns
- d) Separation of concerns
- e) Modularity
- f) Refinement
- g) Refactoring
- h) Archetype
- i) Component