

MCQ: SOFTWARE DESIGN

1. In Design phase, which is the primary area of concern?
 - a) Architecture
 - b) Data
 - c) Interface
 - d) All of the mentioned
2. The importance of software design can be summarized in a single word which is:
 - a) Efficiency
 - b) Accuracy
 - c) Quality
 - d) Complexity
3. Cohesion is a qualitative indication of the degree to which a module
 - a) can be written more compactly
 - b) Focuses on just one thing
 - c) is able to complete its function in a timely manner
 - d) is connected to other modules and the outside world
4. Coupling is a qualitative indication of the degree to which a module
 - a) can be written more compactly
 - b) focuses on just one thing
 - c) is able to complete its function in a timely manner
 - d) Is connected to other modules and the outside world
5. Software Design consists of _____
 - a) Software Product Design
 - b) Software Engineering Design
 - c) software Product & Engineering Design
 - d) None of the mentioned
6. Which of these are followed in case of software design process?
 - a) Analysis occurs at start of product design with a product idea
 - b) analysis occurs at the end of engineering design with the SRS
 - c) product design resolution produces the design document
 - d) engineering design resolution produces the SRS
7. Which of these is not in sequence for generic problem-solving strategy?
 - a) Understand the problem
 - b) Generate candidate solutions
 - c) iterate if no solution is adequate
 - d) None of the mentioned
8. Which of these is not in sequence for generic design process?
 - a) Analyze the Problem

- b) Evaluate candidate solutions.
- c) Finalize the Design
- d) None of the mentioned

9. What is Architecture of a software based on?

- a) design
- b) Requirements
- c) all of the mentioned
- d) none of the mentioned

10. What would happen if different organization were given same set of requirements?

- a) It will produce same architecture
- b) it will produce different architecture
- c) It may or may not produce same architecture
- d) None of the mentioned

11. What does Software architecture mean?

- a) It is the structure or structure of systems
- b) It comprises of software components
- c) Relationship among components
- d) All of the mentioned

12. The architects are influenced by which of the following factors?

- a) Customers and end users
- b) Developing organization
- c) Background and experience of the architects
- d) All of the mentioned

13. What makes a good architecture?

- a) the architecture may not be the product of a single architect or a small group
- b) The architect should have the technical requirements for the system and an articulated and prioritized list of qualitative properties
- c) the architecture may not be well documented
- d) all of the mentioned

14. What is architectural style?

- a) Architectural style is a description of component types
- b) It is a pattern of run-time control
- c) It is set of constraints on architecture
- d) All of the mentioned

15. What is a Reference Model?

- a) it is a division of functionality together with data flow between the pieces
- b) it is a description of component types
- c) it is standard decomposition of a known problem into parts that cooperatively solve a problem

d) It is a division of functionality together with data flow between the pieces, It is standard decomposition of a known problem into parts that cooperatively solve a problem

16. Which of the following can be considered regarding client and server?

- a) Client and server is an architectural style
- b) client and server may be considered as an architectural style
- c) client and server is not an architectural style
- d) none of the mentioned

17. Which of the following is incorrect?

- a) A reference model divides the functionality
- b) A reference architecture is the mapping of that functionality onto system decomposition
- c) All of the mentioned
- d) none of the mentioned

18. Which of the following is true?

- a) Architecture is low level design
- b) Architecture is mid-level design
- c) architecture is high level design
- d) None of the mentioned

19. Which of the following style's main goal is to achieve modifiability?

- a) Independent component architecture
- b) layered Styles
- c) heterogeneous styles
- d) none of the mentioned

20. In which of the architecture style main program and subroutine systems are decomposed into parts that live on computers connected via a network?

- a) Main program and subroutine Architecture
- b) remote Procedure Call system
- c) Object Oriented or abstract data type system
- d) All of the mentioned

21. Which of the following are true for pattern?

- a) it is a small collection of atomic units
- b) they are ubiquitous throughout software development
- c) all of the mentioned
- d) None of the mentioned

22. Which of the factors make a pattern portable?

- a) Creating instances of some appropriate resource at run time
- b) Presentation of two different user interface toolkits
- c) all of the mentioned
- d) None of the mentioned

23. Which design concept focuses on breaking down a system into smaller, independent modules?

- a) Coupling
- b) Cohesion
- c) Modularity
- d) Abstraction

24. In architectural design decisions, what does multiprocessor architecture emphasize?

- a) parallel execution of tasks on multiple processors
- b) Centralized processing by a single processor
- c) Distributed storage across multiple servers
- d) Sequential execution of tasks on multiple processors

25. What does a Client-Server architecture promote?

- a) Centralized processing by a single server
- b) Decentralized processing by multiple clients
- c) Mutual exclusion of clients and servers
- d) shared processing between clients and servers

26. What is a modular decomposition style in software design?

- a) design concept without any practical application
- b) A way of breaking down a system into smaller, manageable sub-systems
- c) design heuristic used for user interface development
- d) model used specifically for real-time software design

27. Which architecture emphasizes the division of labor between clients and servers?

- a) Multiprocessor architecture
- b) client-server architectures.
- c) Distributed object architectures
- d) Inter-organizational distributed computing

28. What does Component-based Software Engineering focus on?

- a) Designing software systems using reusable components.
- b) Designing software based on a centralized server
- c) Creating software without modular decomposition
- d) Using prototypes for system development

1.(d) 11.(d) 21.(d)

2.(c) 12.(d) 22.(c)

3.(b) 13.(b) 23.(c)

4.(d) 14.(d) 24.(a)

5.(c) 15.(d) 25.(d)

6.(a) 16.(a) 26.(b)

7.(c) 17.(d) 27.(b)

8.(b) 18.(c) 28.(a)

9.(b) 19.(a)

10.(b) 20.(b)