

Software Engineering MCQs

In this article, we are going to discuss the most commonly asked multiple-choice questions related to Software Engineering.

The primary purpose of writing this article is to target competitive exams and interviews. Here, we will cover all the frequently asked Software Engineering questions with the correct choice of answer among various options.

1) What is the first step in the software development lifecycle?

- a. System Design
- b. Coding
- c. System Testing
- d. Preliminary Investigation and Analysis

Show Answer Workspace

2) What does the study of an existing system refer to?

- a. Details of DFD
- b. Feasibility Study
- c. System Analysis
- d. System Planning

Show Answer Workspace

3) Which of the following is involved in the system planning and designing phase of the Software Development Life Cycle (SDLC)?

- a. Sizing
- b. Parallel run
- c. Specification freeze
- d. All of the above

Show Answer Workspace

4) What does RAD stand for?

- a. Rapid Application Document
- b. Rapid Application Development
- c. Relative Application Development
- d. None of the above

Show Answer Workspace

5) Which of the following prototypes does not associated with Prototyping Model?

- a. Domain Prototype
- b. Vertical Prototype
- c. Horizontal Prototype
- d. Diagonal Prototype

Show Answer Workspace

6) The major drawback of RAD model is _____.

- a. It requires highly skilled developers/designers.
- b. It necessitates customer feedbacks.
- c. It increases the component reusability.
- d. Both (a) & (c)

Show Answer Workspace

7) Which of the following does not relate to Evolutionary Process Model?

- a. Incremental Model
- b. Concurrent Development Model
- c. WINWIN Spiral Model
- d. All of the above

Show Answer Workspace

8) What is the major drawback of the Spiral Model?

- a. Higher amount of risk analysis
- b. Doesn't work well for smaller projects
- c. Additional functionalities are added later on
- d. Strong approval and documentation control

Show Answer Workspace

9) Model selection is based on _____.

- a. Requirements
- b. Development team & users
- c. Project type & associated risk
- d. All of the above

Show Answer Workspace

10) Which of the following option is correct?

- a. The prototyping model facilitates the reusability of components.
- b. RAD Model facilitates reusability of components
- c. Both RAD & Prototyping Model facilitates reusability of components
- d. None

Show Answer Workspace

11) Which of the following models doesn't necessitate defining requirements at the earliest in the lifecycle?

- a. RAD & Waterfall
- b. Prototyping & Waterfall
- c. Spiral & Prototyping
- d. Spiral & RAD

Show Answer Workspace

12) When the user participation isn't involved, which of the following models will not result in the desired output?

- a. Prototyping & Waterfall
- b. Prototyping & RAD
- c. Prototyping & Spiral
- d. RAD & Spiral

Show Answer Workspace

13) Which of the following model will be preferred by a company that is planning to deploy an advanced version of the existing software in the market?

- a. Spiral
- b. Iterative Enhancement
- c. RAD
- d. Both (b) and (c)

Show Answer Workspace

14) Arrange the following activities for making a software product by utilizing 4GT.

- I. Design strategy
- II. Transformation into product
- III. Implementation
- IV. Requirement gathering

- a. 4, 1, 3, 2
- b. 4, 3, 2, 1
- c. 1, 2, 3, 4
- d. 1, 4, 2, 3

Show Answer Workspace

15) Which of the following is an example of Black Box and Functional Processing?

- a. First Generation Language
- b. Second Generation Language
- c. Third Generation Language
- d. Fourth Generation Language

Show Answer Workspace

16) _____ is identified as fourth generation language.

- a. Unix shell
- b. C++
- c. COBOL
- d. FORTRAN

Show Answer Workspace

17) The productivity of a software engineer can be reduced by using a 4GT.

- a. True
- b. False

Show Answer Workspace

18) Which of the following is the main advantage of deploying a 4GT model for producing small-scale products, programs, and applications?

- a. The productivity of software engineers is improved.
- b. The time required for developing software is reduced.
- c. CASE tools and code generators help the 4GT model by providing a credible solution to their problems.
- d. None of the above.

Show Answer Workspace

19) Which of the following model has a major downfall to a software development life cycle in terms of the coding phase?

- a. 4GT Model
- b. Waterfall Model
- c. RAD Model
- d. Spiral Model

Show Answer Workspace

20) Which of the following falls under the category of software products?

- a. Firmware, CAD
- b. Embedded, CAM
- c. Customized, Generic
- d. CAD, Embedded

Show Answer Workspace

21) Software maintenance costs are expensive in contrast to software development.

- a. True
- b. False

Show Answer Workspace

22) Which of the following activities of the generic process framework delivers a feedback report?

- a. Deployment
- b. Planning
- c. Modeling
- d. Construction

Show Answer Workspace

23) Which of the following refers to internal software equality?

- a. Scalability
- b. Reusability

- c. Reliability
- d. Usability

Show Answer Workspace

24) RUP is abbreviated as _____, invented by a division of _____.

- a. Rational Unified Process, IBM
- b. Rational Unified Program, IBM
- c. Rational Unified Process, Infosys
- d. Rational Unified Program, Infosys

Show Answer Workspace

25) The RUP can be defined based on three main perspectives, i.e., static, dynamic & practice. What is the purpose of static perspective?

- a. It recommends some good practices that be included while carrying out the process.
- b. It displays all the enacted process activities.
- c. It portrays the phases that the model has entered over a specific time.
- d. All of the above.

Show Answer Workspace

26) Which one of the following activities is not recommended for software processes in software engineering?

- a. Software Evolution
- b. Software Verification
- c. Software Testing & Validation
- d. Software designing

Show Answer Workspace

27) Arrange the following activities to form a general software engineering process model.

I. Manufacture

II. Maintain

III. Test

IV. Install

V. Design

VI. Specification

- a. 6, 5, 1, 3, 4, 2
- b. 1, 2, 4, 3, 6, 5
- c. 6, 1, 4, 2, 3, 5
- d. 1, 6, 5, 2, 3, 4

Show Answer Workspace

28) The agile software development model is built based on _____.

- a. Linear Development
- b. Incremental Development
- c. Iterative Development
- d. Both Incremental and Iterative Development

Show Answer Workspace

29) On what basis is plan-driven development different from that of the software development process?

- a. Based on the iterations that occurred within the activities.
- b. Based on the output, which is derived after negotiating in the software development process.
- c. Based on the interleaved specification, design, testing, and implementation activities.
- d. All of the above

Show Answer Workspace

30) Which of the following activities is not applicable to agile software development?

- a. Producing only the essential work products.
- b. Utilizing the strategy of incremental product delivery.
- c. Abolishing the project planning and testing.
- d. All of the above

Show Answer Workspace

31) Which of the following framework activities are carried out in Adaptive Software Development (ASD)?

- a. Assumption, Association, Learning
- b. The investigation, Strategy, Coding
- c. Requirements gathering, Adaptive cycle planning, Iterative development
- d. All of the above

Show Answer Workspace

32) The _____ model helps in representing the system's dynamic behavior.

- a. Object Model
- b. Context Model
- c. Behavioral Model
- d. Data Model

Show Answer Workspace

33) Model-driven engineering is nothing but a theoretical concept. It can never be transmuted into a working/executable code.

- a. True
- b. False

Show Answer Workspace

34) The _____ and _____ are the two major dimensions encompassed in the Spiral model.

- a. Diagonal, Perpendicular
- b. Perpendicular, Radial
- c. Angular, diagonal
- d. Radial, Angular

Show Answer Workspace

35) Which of the following technique is involved in certifying the sustained development of legacy systems?

- a. Reengineering
- b. Forward engineering
- c. Reverse engineering
- d. Reverse engineering and Reengineering

Show Answer Workspace

36) An erroneous system state that results in an unexpected system behavior is acknowledged as?

- a. System failure
- b. Human error or mistake
- c. System error
- d. System fault

Show Answer Workspace

37) What is the name of the approach that follows step-by-step instructions for solving a problem?

- a. An Algorithm
- b. A Plan
- c. A List
- d. Sequential Structure

Show Answer Workspace

38) Which of the following word correctly summarized the importance of software design?

- a. Quality
- b. Complexity
- c. Efficiency
- d. Accuracy

Show Answer Workspace

39) Which of the following methodology results in SA/SD features?

- a. Gane and Sarson methodology
- b. DeMarco and Yourdon methodology
- c. Constantine and Yourdon methodology
- d. All of the above

Show Answer Workspace

40) _____ is not considered as an activity of Structured Analysis (SA).

- a. Transformation of a textual problem description into a graphic model
- b. Functional decomposition
- c. All the functions represented in the DFD are mapped to a module structure
- d. d) All of the mentioned

Show Answer Workspace

41) What does a directed arc or line signify?

- a. Data Flow
- b. Data Process
- c. Data Stores
- d. None of the above

Show Answer Workspace

42) What does a data store symbol in the Data Flow Diagram signify?

- a. Logical File
- b. Physical File
- c. Data Structure
- d. All of the above

Show Answer Workspace

43) _____ is not a direct measure of SE process.

- a. Effort
- b. Cost
- c. Efficiency
- d. All of the above

Show Answer Workspace

44) What is the main task of project indicators?

- a. To evaluate the ongoing project's status and track possible risks.
- b. To evaluate the ongoing project's status.
- c. To track potential risks.
- d. None of the above

Show Answer Workspace

45) What is the main intent of project metrics?

- a. For strategic purposes
- b. To minimize the development schedule.
- c. To evaluate the ongoing project's quality on a daily basis
- d. To minimize the development schedule and evaluate the ongoing project's quality on a daily basis

Show Answer Workspace

46) Name the graphical practice that depicts the meaningful changes that occurred in metrics data.

- a. Function point analysis
- b. Control Chart
- c. DRE (Defect Removal Efficiency)
- d. None of the above

Show Answer Workspace

47) Which parameters are essentially used while computing the software development cost?

- a. Hardware and Software Costs
- b. Effort Costs
- c. Travel and Training Costs
- d. All of the above

Show Answer Workspace

48) Which of the following is an incorrect activity for the configuration management of a software system?

- a. Change management
- b. System management
- c. Internship management
- d. Version management

Show Answer Workspace

49) The project planner examines the statement of scope and extracts all-important software functions, which is known as

- a. Planning process
- b. Decomposition

- c. Association
- d. All of the mentioned

Show Answer Workspace

50) Which of the following is not considered as an option for achieving reliable cost and effort estimation?

- a. The ability to translate the size estimate into human effort, calendar time, and dollars
- b. Use relatively simple decomposition techniques to generate project cost and effort estimates.
- c. Base estimates on similar projects that have already been completed
- d. Use one or more empirical models for software cost and effort estimation

Show Answer Workspace

51) Which of the following does not complement the decomposition techniques but offers a potential estimation approach for their impersonal growth?

- a. Empirical estimation models
- b. Decomposition techniques
- c. Automated estimation tools
- d. Both empirical estimation models and automated estimation tools

Show Answer Workspace

52) Which of the following is not included in the total effort cost?

- a. Costs of lunch time food
- b. Costs of support staff
- c. Costs of networking and communications
- d. Costs of air conditioning and lighting in the office space

Show Answer Workspace

53) What is developed by utilizing the historical cost function?

- a. Parkinson's Law
- b. Expert judgment
- c. Algorithmic cost modeling
- d. Estimation by analogy

Show Answer Workspace

54) Which of the following model has a misconception that systems are built by utilizing reusable components, scripts, and database programs?

- a. The reuse model
- b. An early designed model
- c. An application-composition model
- d. A post architecture model

Show Answer Workspace

55) Which of the following is used to predict the effort as a function of LOC or FP?

- a. COCOMO
- b. FP-based estimation
- c. Both COCOMO and FP-based estimation
- d. Process-based estimation

Show Answer Workspace

56) Once the requirements are stabilized, the basic architecture of the software can be established. Which of the following version of the COCOMO model conforms to the given statement?

- a. Application composition model
- b. Post-architecture-stage model
- c. Early design stage model
- d. All of the above

Show Answer Workspace

57) Which of the following threatens the quality and timeliness of the produced software?

- a. Business risks
- b. Potential risks
- c. Technical risks
- d. Known risks

Show Answer Workspace

58) Which of the following refers to the systematic attempt, which is implemented to ascertain the threats to any project plan?

- a. Performance risk
- b. Risk identification
- c. Risk projection
- d. Support risk

Show Answer Workspace

59) Which of the following standards is used by the aviation industry?

- a. CTRADO-172B
- b. RTCADO-178B
- c. RTRADO-178B
- d. CTCADO-178B

Show Answer Workspace

60) Third-Party Certification for software standards is based on _____.

- a. UI 1996, Second Edition
- b. UI 1998, Second Edition
- c. UI 1992, Second Edition
- d. UT 1998, Second Edition