# SOFTWARE ENGINEERING MCQ QUESTIONS



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# **Software Engineering**

# **MCQ Questions**



# **Fundamentals of Software Engineering**

## Set-1

1. ..... software resides only in read-only memory and is used to control products and systems for the consumer and industrial markets. A) Business

- B) Embedded
- C) System

D) Personal

2. ..... software uses non-numerical algorithms to solve complex problems that are not amenable to computation or straightforward analysis.

- A) Artificial Intelligence
- B) Web-based
- C) Embedded
- D) Real-time

3. ..... is a sub-discipline of computer Science that attempts to apply engineering principles to the creation, operation, modification, and maintenance of the software components of various systems.

- A) Computer Engineering
- B) Hardware Engineering
- C) Software Engineering
- D) Component Engineering

4. The cost of software engineering includes approximately ...... of development costs and ..... of testing costs.

A) 50%, 50%

- B) 40%, 60%
- C) 80%, 20%
- D) 60%, 40%

5. Software maintenance refers to the support phase of software development, which includes. jech.cc

A) Correction

- **B)** Adaptation
- C) Enhancement
- D) All the above

6. The ..... model stipulates that the requirements be completely specified before the rest of the development can be processed.

- A) Waterfall
- B) Rapid Application Development (RAD)
- C) Iterative Development
- D) Incremental Development

7. State whether True or False for Rapid Application Development (RAD).

i) RAD is not appropriate when technical risks are high.

ii) For large but scalable projects, RAD requires sufficient human resources to create the right number of RAD teams.

A) True, FalseB) False, True

C) True, True

D) False, False

8. ..... model couples the iterative nature of the prototyping with the controlled and systematic aspects of the linear sequential model.

A) Spiral

B) Rapid Application Development (RAD)

C) Iterative Development

D) Incremental Development

9. ..... is a function of the number of failures experienced by a particular user of that software.

A) Software Usability

B) Software reliability

C) Software performance

D) None of the above

10. Statistical testing is a software testing process in which the objective is to measure the ...... of the software rather than to discover software faults.

A) availability

B) reliabilityC) reusabilityD) all of the above

11. ..... results in modification to the software to accommodate changes to its external environment.

- A) Adaptive maintenance
- B) Perfective maintenance
- C) Corrective maintenance
- D) Standard maintenance

12. ..... extends the software beyond its original functional requirements.

- A) Adaptive maintenance
- B) Perfective maintenance
- C) Corrective maintenance
- D) Standard maintenance

13. The ...... model suggests a systematic sequential approach to software development that begins at the system level and progresses through analysis, design, coding, testing, and support.

- A) linear sequential development
- B) rapid application development
- C) incremental development
- D) iterative enhancement

14. Which of the following activities is included in the linear sequential model for software development?

i) analysis ii) design iii) coding iv) correction v) test

A) i, ii, iii and iv only

- B) ii, iii, iv and v only
- C) i, ii, iii and v only

D) i, iii, iv and v only

15. ..... is a multi-step process that focuses on four distinct attributes of a program, data structure, software architecture, interface representations, and procedural detail.

A) Software analysis

- B) Software design
- C) Coding
- D) Testing

16. The ...... assumes the requirement of a system that can be baseline before the design begins.

A) linear sequential model

- B) rapid application model
- C) incremental model
- D) iterative enhancement model

17. ..... is a document-driven process that requires formal documents at the end of each phase.

A) Linear Sequential Development

B) Rapid Application Development

C) Incremental Development

D) Iterative Enhancement

18. ..... is an incremental software development process model

that emphasizes an extremely short development cycle.

A) Linear Sequential Development

B) Rapid Application Development

C) Incremental Development

D) Iterative Enhancement

#### Answers

1.B) Embedded

2.A) Artificial Intelligence

- 3.C) Software Engineering
- 4.D) 60%, 40%
- 5.D) All the above
- 6.A) Waterfall
- 7.C) True, True
- 8.A) Spiral

- 9.B) Software reliability
- 10. B) reliability
- 11. A) Adaptive maintenance
- 12. B) Perspective maintenance
- 13. A) linear sequential development
- 14. C) i, ii, iii, and v only
- 15. B) Software design
- 16. A) linear sequential model
- 17. A) Linear Sequential Development
- sileinininini con 18. B) Rapid Application Development

#### Set-2

- 1. Reliability in a software system can be achieved using which of the
- following strategies?
- A) Fault avoidance
- B) Fault tolerance
- C) Fault detection
- D) All the above

2. ..... strategy assumes that residual faults remain in the system and can continue in operation after some system failures have occurred.

- A) Fault avoidance
- B) Fault tolerance
- C) Fault detection
- D) None of the above

3. ..... involves modifying the system so that the fault does not recur.

- A) Failure detection
- B) Damage assessment
- C) Fault recovery
- D) Fault repair

4. ..... is an approach to program development whereby programmers assume that there may be undetected faults or inconsistencies in their programs.

A) Defensive programming

B) Effective programming

- C) Strong programming
- D) Known programming

5. ..... is a classification scheme, which shows how an object class is related to other classes through common attributes and services.

A) Hierarchy

B) Inheritances

C) Taxonomy

D) None of the above

6. ..... is a list of names used by the systems, arranged alphabetically.

- A) Data Library
- B) Data Dictionary

C) Name Dictionary

D) System Dictionary

7. The ...... model of system design is a distributed system model which show how data and processing is distributed across a range of processors.

A) repository

B) client-server

C) abstract machine

D) None of the above

8. The main design activities in the software design process are

i) System specification iii) Component design

ii) interface design iv) algorithm design

A) ii, iii and iv only

B) i, ii and iii only

C) i, iii and iv only

D) All i, ii, iii and iv

9. ..... is the process that controls the changes made to a system, and manages the different versions of the evolving software product.

A) Software management

B) Configuration management

C) Version management

D) Release management

10. The different types of software maintenance systems are

A) Corrective maintenance

B) Adaptive maintenance

C) Perspective maintenance

D) All the above

11. In ...... phase the information flow which would have been defined as part of the business modeling phase is redefined into a set of data objects that are needed to support the business.

A) Business modeling

- B) data modeling
- C) process modeling
- D) application generation

12. ..... requires developers and customers who are committed to the rapid-fire activities necessary to get a system complete in a much

abbreviated time frame. A) Waterfall

B) Rapid Application Development (RAD)

- C) Iterative Development
- D) Incremental Development

13. The ..... model counters the third limitation of the waterfall model and tries to combine a benefit of both prototyping and waterfall model.

A) Linear Sequential Development

- B) Rapid Application Development
- C) Incremental Development
- D) Iterative Enhancement

14. The iterative enhancement model in software development encompasses which of the following phases?
i) Analysis ii) Design iii) Coding iv) Implementation
A) i, ii and iii only
B) ii, iii and iv only
C) i, ii and iv only
D) All i, ii, iii and iv

15. State whether the following statements about the incremental development model used in software development are True or False.i) The incremental model combines elements of the linear accuration model.

i) The incremental model combines elements of the linear sequential model with the iterative process of prototyping.

ii) When an incremental model is used, the first increment is the core product.

A) True, True

B) False, True

C) True, False

D) False, False

16. ..... model is particularly useful when staffing is unavailable for a complete implementation by the business deadline that has been established for the project.

A) Linear Sequential Development

B) Rapid Application Development

C) Incremental Development

D) Iterative Enhancement

17. ..... model couples the iterative nature of the prototyping with the controlled and systematic aspects of the linear sequential model. A) Waterfall

B) Rapid Application Development (RAD)

C) Spiral

D) Incremental Development

18. Which of the following is NOT the phase consisting on the spiral model of software development?

A) Planning

- B) Design
- C) Engineering
- D) Risk Analysis

19. ..... model can be represented schematically as a series of major technical activities, tasks, and their associated states. A) Waterfall

B) Rapid Application Development (RAD)

C) Spiral

D) Concurrent Process

**20**. Rapid Application Development (RAD) model in software development encompasses which of the following phases?

i) Business modeling ii) Data modeling iii) Process modeling iv)Application generationA) i, ii and iii onlyB) ii, iii and iv onlyC) i, iii and iv only

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D) All i, ii, iii and iv

#### **Answers:**

- 1. D) All the above
- 2. B) Fault tolerance
- 3. D) Fault repair
- 4. A) Defensive programming
- 5. C) Taxonomy
- 6. B) Data Dictionary
- 7. B) client-server
- 8. D) All i, ii, iii and iv
- 9. B) Configuration management
- 10. D) All the above
- 11. B) data modeling
- 12. B) Rapid Application Development (RAD)
- 13. D) Iterative Enhancement
- 14. C) i, ii, and iv only
- 15. A) True, True
- 16. C) Incremental Development

17. C) Spiral18. B) Design19. D) Concurrent Process20. D) All i, ii, iii and iv

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# **Software Reliability**

## Set-1

1. A software reliability matrix, ..... is a measure of the likelihood

that the system will fail when a service request is made.

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

D) Rate of Failure Occurrence (ROCOF)

2. Operating system and transaction processing system are the example systems of ...... matrix which have been used for software reliability specification.

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

D) Rate of Failure Occurrence (ROCOF)

3. ..... is a measure of the time between observed system failures.

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

#### D) Availability (AVAIL)

4. ..... is a measure of the frequency of occurrence with which unexpected behavior is likely to occur.

A) Probability of Failure on Demand (POFOD)

- B) Rate of Failure Occurrence (ROCOF)
- C) Mean Time to Failure (MTTF)
- D) Rate of Failure Occurrence (ROCOF)

5. Continuously running systems, such as telephone switching systems, are examples of software reliability matrix .....

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

D) Availability (AVAIL)

6. Systems with long transactions, such as CAD systems, are the example systems of ...... matrix.

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

D) Availability (AVAIL)

7. ..... is a measure of how likely the system is to be available for use.

A) Probability of Failure on Demand (POFOD)

B) Rate of Failure Occurrence (ROCOF)

C) Mean Time to Failure (MTTF)

D) Availability (AVAIL)

8. Select the correct order for the steps involved in statistical testing.

i) Apply these test cases to the program.

ii) Determine the operational profile of the software.

iii) Select or generate a set of test data corresponding to the operational profile.

- A) i, iii, ii
- B) iii, ii, i
- C) ii, iii, i
- D) i, ii, iii

9. Reliability in software system can be achieved using which of the following strategies.

i) Fault Avoidance

iii) Fault Detection

ii) Fault Tolerance

ection iv) Fault Deletion

A) i, ii and iii only

B) ii, iii and iv only

C) i, iii and iv only

D) All i, ii, iii and iv

10. Fault avoidance and the development of fault-free software rely oni) Restriction on the use of programming constructs, such as pointers, which are inherently error-prone.

ii) The use of a strongly typed programming language so that possible errors are detected by the language compiler.

iii) The availability of a precise system specification, which is an unambiguous description of what must be implemented.

- A) i and ii only
- B) ii and iii only
- C) i and iii only
- D) All i, ii and iii

11. ..... is a term which is to means programming without using go to statements, programming using only while loops and if statements as control structures, and designing using a top-down approach.

A) Statement programming

- B) Structured programming
- C) N-Version programming
- D) Defensive programming

12. We can reduce the faults introduced into programs with the use of these constructs.

i) Integers ii) Floating-Point Members iii) Pointer iv) RecursionA) i, ii and iii only

B) ii, iii and iv onlyC) i, iii and iv onlyD) All i, ii, iii and iv

13. ..... are means of forcing control to transfer to a section of code irrespective of the code currently executing.

A) Parallelism

B) Recursion

C) Interrupts

D) Pointers

14. ..... is the situation in which a subroutine calls itself or calls another subroutine, which then calls the calling subroutine.

A) Parallelism

B) Recursion

C) Interrupts

D) Pointers

15. ..... may be unavoidable, but its use should be carefully controlled to minimize inter-process dependencies.

A) Parallelism

B) Recursion

C) Interrupts

D) Pointers

16. ..... is needed in situations where system failure would cause some accident or where a loss of system operation would cause large economic losses.

A) Fault avoidance

- B) Fault detection
- C) Fault tolerance
- D) Fault recovery

17. Which of the following are the aspects to fault tolerance.

i) Failure detection ii) Damage assessment

iii) Fault recovery iv) Fault repair

A) i, ii and iii only

B) ii, iii and iv only

C) i, iii and iv only

D) All i, ii, iii and iv

18. ..... is an approach to fault tolerance, which can be carried out without a fault-tolerant controller.

A) Exception Handling

B) Defensive Programming

C) Failure Prevention

D) Damage Assessment

#### Answers

- 1. A) Probability of Failure on Demand (POFOD)
- 2. B) Rate of Failure Occurrence (ROCOF)
- 3. C) Mean Time to Failure (MTTF)
- 4. B) Rate of Failure Occurrence (ROCOF)
- 5. D) Availability (AVAIL)
- 6. C) Mean Time to Failure (MTTF)
- 7. D) Availability (AVAIL)
- 8. C) ii, iii, i
- 9. A) i, ii and iii only
- 10. D) All i, ii and iii
- 11. B) Structured programming
- 12. B) ii, iii and iv only
- 13. C) Interrupts
- 14. B) Recursion
- 15. A) Parallelism
- 16. C) Fault tolerance
- 17. D) All i, ii, iii and iv
- 18. B) Defensive Programming

Read Next: MCQ On Software Reliability In Software Engineering Part-2

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# **Software Design Principles**

#### Set-1

1. Which of the following is/are the different types of system models that might be produced as part of the analysis process?

i) Data-processing model ii) Composition model

iii) Classification model iv) Process model

A) i, ii and iii only

B ii, iii and iv only

C) i, iii and iv only

D) All i, ii, iii and iv

2. ..... may be used to show the principal activities and deliverables involved in carrying out some process.

A) Data-processing model

B) Composition model

C) Classification model

D) Process model

3. In a ....., entity-relation diagram may be used to show how some entities in a system are composed of other entities.

A) data-processing model

B) composition model

C) classification model

D) process model

4. Within a ....., data flow diagrams may be used to show how data is processed at different stages in the system.

- A) data-processing model
- B) composition model
- C) classification model

D) process model

5. ..... may be used to show how the system reacts to internal and external events.

- A) Entity-relation diagram
- B) Data flow diagram
- C) Objects class diagram
- D) State transaction diagram

6. ..... may be used to show how entities have common characteristics.

- A) Entity-relation diagram
- B) Data flow diagram
- C) Objects class diagram
- D) State transaction diagram

7. ..... is a way of showing how data is processed by a system.

A) Data flow models

- B) System models
- C) Semantic data models
- D) Object models

8. ..... are used to show how data flows through a sequence of processing steps.

- A) Data flow models
- B) System models
- C) Semantic data models
- D) Object models

9. State whether the following statements about the data flow model are True or False.

i) The data flow model shows how the order for the goods moves from process to process.

ii) Data flow diagrams are a good way to describe a sub-system with complex interfaces.

- A) True, False
- B) False, True
- C) False, False
- D) True, True

10. ..... always identify the entities in a database, their attributes, and explicit relationships between them.

- A) Data flow models
- B) System models
- C) Semantic data models
- D) Object models

11. ..... have the advantage that, unlike some other modeling notations, they are simple and intuitive.

- A) Entity-relationship diagram
- B) Data flow diagram
- C) Objects class diagram
- D) State transaction diagram

12. The database schema derived from ..... is naturally in third normal form, which is a desirable characteristic of relational schema.

- A) data-processing model
- B) composition model
- C) classification model
- D) entity-relationship model

13. ..... developed during requirement analysis, used to represent both system data and its processing.

- A) data-processing models
- B) object models
- C) classification models

D) entity-relationship models

14. State whether the following statements about the advantages of using the data dictionary are True or False.

i) The data dictionary software can check for name uniqueness and tell requirements analysis of name duplication.

ii) Data dictionary servers as store of organization information which can link analysis, design, implementation and evaluation.

- A) True, False
- B) False, True
- C) False, False
- D) True, True

15. Which of the following is/are the activities used in the design process for large software systems.

i) Architectural designs
ii) Abstract specification
iii) Code design
iv) Interface design
A) i, ii and iii only
B ii, iii and iv only
C) i, ii and iv only
D) All i, ii, iii and iv

16. A/An ..... is one of the structured method of software design, where the system is modeled using the data transformations, which take place as it, is processed.

A) data-flow modelB) structured modelC) classification modelD) entity-relation model

17. A/An ..... in structured methods is used to describe the logical data, structured being used.

A) data-flow model

B) structured model

C) classification model

D) entity-relation model

18. A/An ..... is one of the structured methods of software design approach, where the system components and their interactions are documented.

A) data-flow model

B) structured model

C) classification model

D) entity-relation model

19. In ..... models, the system is decomposed into functional models, which accept input data and transform it into some way to output data.

A) object-oriented model

B) domain-specific model

C) control modelD) data-flow model

20. In ...... architectures, the common architectural structure can be reused when developing new systems.

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- A) object-oriented model
- B) domain-specific model
- C) abstract machine model
- D) repository model

#### Answers

- 1. D) All i, ii, iii and iv
- 2. D) Process model
- 3. B) composition model
- 4. A) data-processing model
- 5. D) State transaction diagram
- 6. C) Objects class diagram
- 7. A) Data flow models
- 8. A) Data flow models
- 9. A) True, False
- 10. C) Semantic data models
- 11. B) Data flow diagram
- 12. D) entity-relationship model
- 13. B) object models

14. D) True, True
15. C) i, ii and iv only
16. A) data-flow model
17. D) entity-relation model
18. B) structured model
19. D) data-flow model

20. B) domain-specific model

Read Next: Solved MCQ Questions On Software Design Principles Part-2

# **Software Development Strategies**

#### Set-1

1. The ...... was an improved version of an earlier process model called the Nine-phase, stage-wise model.

- A) nine-phase model
- B) waterfall model
- C) incremental and iterative model
- D) evolutionary development model

2. The ...... was a one-directional, sequential model that was enhanced by the waterfall model through the introduction of bi-directional

relations between the successive model stages.

A) nine-phase model

- B) waterfall model
- C) incremental and iterative model
- D) evolutionary development model

3. ..... model also called phased development models that share the common objective of reducing the cycle time for development.

- A) Evolutionary Development Model
- B) Incremental and Iterative Model
- C) Prototyping Model

D) Spiral Model

4. The ..... models might be compared to depth-first and breadth-first approaches.

A) nine-phase model

B) waterfall model

C) incremental and iterative model

D) evolutionary development model

5. In a ...... approach, a new functional behavior of the system is implemented in detail at each state.

i) depth-first ii) breadth-first

iii) incremental iv) iterative

A) i and iii only

B) ii and iii only

C) i and iv only

D) ii and iv only

6. In a ....., the set of functions is initially implemented in a broad but shallow manner, where many functions are included but only tentatively realized.

i) depth-first	ii) breadth-first
iii) incremental	iv) iterative
A) i and iii only	

B) ii and iii onlyC) i and iv onlyD) ii and iv only

7. In ...... approach, increments of system capability are released with subsequent stages of development based on user and developer experience with earlier releases.

A) Evolutionary Development Model

B) Incremental and Iterative Model

C) Prototyping Model

D) Spiral Model

8. The ..... fixes requirements, costs, and schedule at the earliest point in order to be able to meet contractual restrictions.

A) waterfall approach

B) prototyping approach

C) spiral approach

D) incremental approach

9. The ...... usually involves building a small version of the intended system prior to building a small version of the intended system prior to building the proposed completed system.

A) waterfall approach

B) prototyping approach

C) spiral approach

D) incremental approach

10. Which of the following is/are the advantages of incremental

development models for software development?

i) Improved development team morale, early solution of implementation problems.

ii) Improved maintenance

iii) Improved control of over-engineering or gold-plating measurement of productivity estimation, feedback smoother staffing requirement.

A) i and ii only

B) ii and iii only

C) i and iii only

D) All i, ii, and iii

11. ..... refers to the use of prototyping as a technique for gathering and clarifying requirements.

A) Exploratory prototyping

B) Experimental prototyping

C) Evolutionary prototyping

D) Embedded prototyping

12. ..... is used to explore changing requirements incrementally and adapt a system to them.

A) Exploratory prototyping

B) Experimental prototyping

C) Evolutionary prototyping

D) Embedded prototyping

13. ..... is used to explore changing requirements incrementally and adapt a system to them.

A) Exploratory prototyping

B) Experimental prototyping

C) Evolutionary prototyping

D) Embedded prototyping

14. ..... refers to prototyping as a component of another software development strategy.

A) Embedded prototyping

B) Horizontal prototyping

C) Vertical prototyping

D) Exploratory prototyping

15. In ....., most of the system functions are at least nominally accessible, but only a few are operational.

A) embedded prototyping

B) horizontal prototyping

C) vertical prototyping

D) exploratory prototyping

16. In ....., a narrow vertical slice of the system function is implemented.

- A) embedded prototyping
- B) horizontal prototyping
- C) vertical prototyping
- D) exploratory prototyping

17. ..... gives the developer a better understanding of the user's work problems and needs and helps the users to clarify their

requirements as well.

A) Embedded prototyping

B) Horizontal prototyping

- C) Vertical prototyping
- D) Exploratory prototyping

18. Which of the following is/are the shortcomings of the prototyping development model.

i) Leading users to overestimate the capabilities of a software product.

ii) Difficulties in project management and control.

iii) provide a tangible or visual expression of the proposed system.

iv) Difficulty in applying the technique to large systems design.

A) i, ii and iii only

B) ii, iii and iv only

C) i, ii and iv only

D) All i, ii, iii and iv only

19. The ...... allows one to incorporate other process models in an inclusive framework driven by project requirements and the dual objective of maximizing user satisfaction while minimizing development uncertainty.

- A) waterfall model
- B) spiral model
- C) prototyping model
- D) evolutionary development model

20. The ..... illustrates how process models can be combined with one another to good effects, such as by integrating prototyping in order to reduce risk.

- A) waterfall model
- B) spiral model
- C) prototyping model
- D) evolutionary development model

## Answers

- 1. B) waterfall model
- 2. A) nine-phase model
- 3. B) Incremental and Iterative Model
- 4. C) incremental and iterative model
- 5. A) i and iii only

6. D) ii and iv only

7. A) Evolutionary Development Model

8. A) waterfall approach

9. B) prototyping approach

10. D) All i, ii, and iii

11. A) Exploratory prototyping

12. B) Experimental prototyping

13. C) Evolutionary prototyping

14. A) Embedded prototyping

15. B) horizontal prototyping

16. C) vertical prototyping

17. D) Exploratory prototyping

18. C) i, ii, and iv only

19. B) spiral model

20. B) spiral model

### Set-2

1. The ...... uses a team-oriented model that focuses on enforcing the use of theoretically sound engineering processes and practices.

A) clean-room model

- B) Capability Maturity Model
- C) prototyping model
- D) spiral model

2. The ...... focuses on management of the entire development environment or process in a team or organized context, emphasizing "process management and the principles and practices associated with software process maturity".

A) clean-room model

B) capability maturity model

C) prototyping model

D) spiral model

3. The testing process in ..... is intended to demonstrate the validity of the system under expected usage, rather than to detect and remove defects.

A) clean-room model

- B) capability maturity model
- C) prototyping model

D) spiral model

4. ..... diagrammatic models or tools are used to define the objects, their properties and relations.

A) Static UML

- B) Dynamic UML
- C) UML sequence
- D) Hybrid UML

5. ..... diagrammatic models or tools are used to define the states of the objects, their state transitions, event handling, and message passing.

- A) Static UML
- B) Dynamic UML
- C) UML sequence
- D) Hybrid UML

Read Also: MCQ Questions On Software Development Strategies Part-1

6. ..... diagrams are used to illustrate the interactions between objects visually.

- A) UML collaboration
- B) UML sequence
- C) System sequence
- D) UML activity

7. ..... diagrams are used to illustrate the interactions between objects arranged in a time sequence and to clarify the logic of use cases.

- A) UML collaboration
- B) UML sequence
- C) System sequence
- D) UML activity

8. A ...... diagram is a visual illustration for the system responses in the use case for a scenario, which describes the system operations triggered by a use case.A) UML collaborationB) UML sequenceC) System sequence

D) UML activity

9. ..... diagrams are used to understand the logic of use cases and business processes.

- A) Traditional state machine
- B) UML sequence
- C) System sequence
- D) UML activity

10. ..... diagrams illustrate the behavior of an object in response to events and as a function of its internal state.

A) Traditional state machine

B) UML sequence

C) System sequence

D) UML activity

11. A/An ...... makes a detailed review of all existing business applications with respect to their longevity, size, maintainability and critically.

A) reverse engineering

B) forward engineering

C) inventory analysis

D) data engineering

12. ..... refers to the attempt to extract and abstract design information from the existing system's source code.

A) Reverse engineering

B) Forward engineering

C) Inventory analysis

D) Data engineering

13. ..... refers to the use of the process results or products from the reverse engineering phase to develop the new system.

A) Reverse engineering

B) Forward engineering

C) Re-documentation

D) Data engineering

14. ..... uses the information about the system's scope and functionality provided by the inventory analysis.

A) Reverse engineering

- B) Forward engineering
- C) Re-documentation
- D) Data engineering

15. ..... refers to the translation of the current model to the target data model.

- A) Reverse engineering
- B) Forward engineering
- C) Re-documentation
- D) Data engineering

16. ..... creates new system documentation from legacy documentation according to an appropriate documentation standard.

- A) Reverse engineering
- B) Forward engineering
- C) Re-documentation
- D)Re-structuring

17. ..... transforms the structure and source code for the system while preserving the system's external functional behavior.

- A) Reverse engineering
- B) Forward engineering
- C) Re-documentation
- D)Re-structuring

18. State whether the following statements about re-engineering are True or False.

i) The advantage of re-engineering is that it can reverse aging symptoms.

ii) Re-engineered components can be constructed through the application of an externally provided re-engineering service.

A) True, False

- B) False, True
- C) True, True

D) False, False

19. The ...... phase of the rational unified process model defines the vision of the actual use end product and the scope of the project.

A) inception

B) construction

C) transition

D) elaboration

20. The ...... phase of the rational unified process model builds the product, modifying the vision and the plan as it proceeds.

A) inception

B) construction

C) transition

D) elaboration

## Answers

- 1. A) clean-room model
- 2. B) Capability Maturity Model
- 3. A) clean-room model
- 4. A) Static UML
- 5. B) Dynamic UML
- 6. A) UML collaboration
- 7. B) UML sequence
- 8. C) System sequence
- 9. D) UML activity
- 10. A) Traditional state machine
- 11. C) inventory analysis
- 12. A) Reverse engineering
- 13. B) Forward engineering
- 14. A) Reverse engineering
- 15. D) Data engineering
- 16. C) Re-documentation
- 17. D)Re-structuring
- 18. C) True, True
- 19. A) inception
- 20. B) construction

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# **Thank You!**

