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CS504 100 % CORRECT MCSQ

1. Choose the correct option in terms of Issues related to professional responsibility
   a) Confidentiality
   b) Intellectual property rights
   c) Both Confidentiality & Intellectual property rights
   d) Managing Client Relationships
2. Efficiency in a software product does not include _____
   a) responsiveness
   b) licensing
   c) memory utilization
   d) processing time

3. As per an IBM report, "31%of the project get cancelled before they are completed, 53% overrun their cost estimates by an average of 189% and for every 100 projects, and there are 94 restarts". What is the reason for these statistics?
   a) Lack of adequate training in software engineering
   b) Lack of software ethics and understanding
   c) Management issues in the company
   d) All of the mentioned

4. The reason for software bugs and failures is due to
   a) Software companies
   b) Software Developers
   c) Both Software companies and Developers
   d) All of the mentioned

5. Build & Fix Model is suitable for programming exercises of _____ LOC (Line of Code).
   a) 100-200
   b) 200-400
   c) 400-1000
   d) above 1000
6. RAD stands for
   a) Relative Application Development
   b) Rapid Application Development
   c) Rapid Application Document
   d) None of the mentioned
7. Which one of the following models is not suitable for accommodating any change?
   a) Build & Fix Model
   b) Prototyping Model
   c) RAD Model
   d) Waterfall Model

8. Which is not one of the types of prototype of Prototyping Model?
   a) Horizontal Prototype
   b) Vertical Prototype
   c) Diagonal Prototype
   d) Domain Prototype
9. Which one of the following is not a phase of Prototyping Model?
   a) Quick Design
   b) Coding
   c) Prototype Refinement
   d) Engineer Product
10. Which of the following statements regarding Build & Fix Model is wrong?
    a) No room for structured design
    b) Code soon becomes unfixable & unchangeable
    c) Maintenance is practically not possible
    d) It scales up well to large projects
11. RAD Model has
    a) 2 phases
    b) 3 phase
    c) 5 phases
    d) 6 phases

Explanation: RAD Model consists of five phases namely: Business modeling, Data modeling, Process modeling, Application generation and Testing & Turnover.

12. What is the major drawback of using RAD Model?
    a) Highly specialized & skilled developers/designers are required
    b) Increases reusability of components
    c) Encourages customer/client feedback
    d) Increases reusability of components, Highly specialized & skilled developers/designers are required
13. 9. SDLC stands for
    a) Software Development Life Cycle
    b) System Development Life cycle
    c) Software Design Life Cycle
    d) System Design Life Cycle
14. 10. Which model can be selected if user is involved in all the phases of SDLC?
    a) Waterfall Model
    b) Prototyping Model
    c) RAD Model
    d) both Prototyping Model & RAD Model
15. What are the types of requirements?
    a) Availability
    b) Reliability
    c) Usability
    d) All of the mentioned
16. Select the developer-specific requirement?
    a) Portability
    b) Maintainability

c) Availability
d) Both Portability and Maintainability

17. Which one of the following is not a step of requirement engineering?
    a) Elicitation
    b) design
    c) analysis
    d) documentation

Explanation: Requirement Elicitation, Requirement Analysis, Requirement Documentation and Requirement Review are the four crucial process steps of requirement engineering. Design is in itself a different phase of Software Engineering.

18. FAST stands for
    a) Functional Application Specification Technique
    b) Fast Application Specification Technique
    c) Facilitated Application Specification Technique
    d) None of the mentioned
19. QFD stands for
    a) quality function design
    b) quality function development
    c) quality function deployment
    d) none of the mentioned
20. A Use-case actor is always a person having a role that different people may play.
    a) True
    b) False

Explanation: Use-case Actor is anything that needs to interact with the system, be it a person or another (external) system.

21. The user system requirements are the parts of which document ?
    a) SDD
    b) SRS
    c) DDD
    d) SRD
22. A stakeholder is anyone who will purchase the completed software system under development.
    a) True
    b) False
23. Conflicting requirements are common in Requirement Engineering, with each client proposing his or her version is the right one.
    a) True
    b) False
24. Which is one of the most important stakeholder from the following ?
    a) Entry level personnel
    b) Middle level stakeholder
    c) Managers
    d) Users of the software
25. Which of the following property does not correspond to a good Software Requirements Specification (SRS)?
    a) Verifiable
    b) Ambiguous
    c) Complete
    d) Traceable

26. The SRS document is also known as _____ specification.
    a) black-box
    b) white-box
    c) grey-box
    d) none of the mentioned
27. Which of the following is included in SRS?
    a) Cost
    b) Design Constraints
    c) Staffing
    d) Delivery Schedule
28. The Unified Modeling Language (UML) has become an effective standard for software modelling. How many different notations does it have?
    a) Three
    b) Four
    c) Six
    d) Nine

Explanation: The different notations of UML includes the nine UML diagrams namely class, object, sequence, collaboration, activity, state-chart, component, deployment and use case diagrams.

29. Which model in system modelling depicts the dynamic behavior of the system?
    a) Context Model
    b) Behavioral Model
    c) Data Model
    d) Object Model
30. Which model in system modelling depicts the static nature of the system?
    a) Behavioral Model
    b) Context Model
    c) Data Model
    d) Structural Model
31. Which perspective in system modelling shows the system or data architecture?
    a) Structural perspective
    b) Behavioral perspective
    c) External perspective
    d) All of the mentioned
32. Activity diagrams are used to model the processing of data.
    a) **True**
    b) False
33. Model-driven engineering is just a theoretical concept. It cannot be converted into a working/executable code.
    a) True
    b) False
34. The UML supports event-based modeling using _____ diagrams.
    a) Deployment
    b) Collaboration
    c) State chart
    d) All of the mentioned
35. Which is the first step in the software development life cycle?
    a) Analysis
    b) Design

c) Problem/Opportunity Identification
d) Development and Documentation

36. Which tool is use for structured designing ?
    a) Program flowchart
    b) Structure chart
    c) Data-flow diagram
    d) Module

Explanation: A Structure Chart (SC) in software engineering and organizational theory, is a chart which shows the breakdown of a system to its lowest manageable levels.

37. A step by step instruction used to solve a problem is known as
    a) Sequential structure
    b) A List
    c) A plan
    d) An Algorithm
38. In the Analysis phase, the development of the _____ occurs, which is a clear statement of the goals and objectives of the project.
    a) documentation
    b) flowchart
    c) program specification
    d) design
39. Actual programming of software code is done during the _____ step in the SDLC.
    a) Maintenance and Evaluation
    b) Design
    c) Analysis
    d) **Development and Documentation**
40. Who designs and implement database structures.
    a) Programmers
    b) Project managers
    c) Technical writers
    d) Database administrators
41. _____ is the process of translating a task into a series of commands that a computer will use to perform that task.
    a) Project design
    b) Installation
    c) Systems analysis
    d) Programming
42. Debugging is:
    a) creating program code
    b) finding and correcting errors in the program code
    c) identifying the task to be computerized
    d) creating the algorithm
43. In Design phase, which is the primary area of concern?
    a) Architecture
    b) Data
    c) Interface
    d) All of the mentioned

44. The importance of software design can be summarized in a single word which is:
    a) Efficiency
    b) Accuracy
    c) Quality
    d) Complexity
45. 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

Explanation: Cohesion of a single module/component is the degree to which its responsibilities form a meaningful unit.

46. 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
47. How many diagrams are here in Unified Modelling Language?
    a) six
    b) seven
    c) eight
    d) nine

Explanation: The nine UML diagrams include use-case, sequence, collaboration, activity, state-chart, deployment, class, object and component.

48. **What can static analysis NOT find?**
    a. The use of a variable before it has been defined.
    b. Unreachable ("dead") code.
    c. Memory leaks.
    d. Array bound violations.
    49. Which plan describes how the skills and experience of the project team members will be developed ?
    a. HR Plan
    b. Manager Plan
    c. Team Plan
    d. Staff Development Plan

50. Alpha and Beta Testing are forms of _____ .

a. Acceptance testing
b. Integration testing
c. System Testing
d. Unit testing

51. What is the Interaction diagram?
    a) Interaction diagrams are the UML notations for dynamic modeling of collaborations
    b) Interaction diagrams are a central focus of engineering design
    c) All of the mentioned
    d) None of the mentioned
52. What are the different interaction diagram notations does UML have?
    a) A sequence diagram
    b) A communication diagram

c) An interaction overview diagram
d) All of the mentioned

53. What is a sequence diagram?
a) A diagram that shows interacting individuals along the top of the diagram and messages passed among them arranged in temporal order down the page
b) A diagram that shows messages superimposed on a diagram depicting collaborating individuals and the links among them
c) A diagram that shows the change of an individual's state over time
d) All of the mentioned

54. Which of the following is true about Sequence frames?
a) A sequence diagram has a frame consisting of a rectangle with a pentagon in its upper left-hand corner
b) The pentagon is its name compartment; the interaction is represented inside the rectangle
c) The string in the name compartment has the form sd interaction Identifier where interaction Identifier is either a simple name or an operation specification with the same format as in a class diagram
d) All of the mentioned

55. What is a lifeline?
a) It is a frame consisting of a rectangle with a pentagon in its upper left-hand corner
b) It is a rectangle containing an identifier with a dashed line extending below the rectangle
c) It is a name compartment; the interaction is represented inside the rectangle
d) None of the mentioned

56. What does a message mean?
a) It Passes all communications from one object to another and are represented by message arrows in sequence diagrams
b) The message goes from the sending object's lifeline to the receiving object's lifeline
c) It is a rectangle containing an identifier with a dashed line extending below the rectangle
d) All of the mentioned

57. What are the three different types of message arrows?
a) Synchronous, asynchronous, asynchronous with instance creation
b) Self, Multiplied, instance generator
c) Synchronous, Asynchronous, synchronous with instance creation
d) None of the mentioned

58. Which of these are true with respect to the message arrows?
a) The synchronous message arrow is used when a sending individual continues execution after sending the message
b) The asynchronous message arrow is used when a sending individual suspends execution after sending the message
c) The dashed arrow is used either to show the return of control from a synchronous message or to create a new entity
d) All of the mentioned

59. When is the operation executing, suspended and active?
a) An operation is executing when some process is actually running its code
b) An operation is suspended when it sends a synchronous message and it is waiting for the message to return
c) An operation is active when it is either executing or suspended
d) All of the mentioned

60. What is the interaction fragments?
    a) A fragment which is a rectangular frame with a pentagonal operation compartment in the upper left-hand corner
    b) A fragment which has a marked part of an interaction specification
    c) The regions resulting from these divisions will not hold the interaction fragment operations
    d) All of the mentioned
61. What are the heuristics which the sequencing diagram follows?
    a) Put pairs of lifelines that interact heavily next to one another
    b) Position lifelines to make message arrows as short as possible
    c) Position lifelines to make message arrows go from left to right
    d) All of the mentioned
62. _____ is yet another technique that can be used to reduce customer dissatisfaction at the requirement stage.
    a. Design
    b. UML
    c. RAD
    d. **Prototype**
63. How to get vision of the product and get early feedback from user to ensure that the development team understands requirements.

a. Using prototype
b. Using sequence diagram
c. Using Design Document
d. None of given

64. A _____ is not the real product. It is rather just a real looking mock-up of what would be eventually delivered and might not do anything useful.

a. Design
b. UML
c. Prototype
d. Standard

65. During the _____, the focus shifts from what to how.

a. Implementation
b. Analysis
c. Requirement
d. Design

66. _____, modularity, and abstraction are different but related principles.

a. Separation of concern
b. Layering
c. Substitution
d. Cohesion

67. A complex system may be divided into smaller pieces of lesser complexity called _____

a. Pieces
b. Fragmentation
c. Modules
d. Abstraction

68. _____ provides a road map for implementation by clearly describing how the software system is to be realized.

a. Requirement Engineering
b. Implementation process
c. Software design
d. Testing process

69. How many software design strategies are there _____
a. 3
b. 2
c. 4
d. 5

70. In the _____ software design strategy, the structure of the system revolves around functions.
a. object oriented design
b. Class oriented design
c. Module oriented Design
d. functional or structured design

71. A _____ is the one in which cost of system change is minimal and is flexible enough so that it can be easily adapted to modify existing functionality and add new functionality.
a. Software Design Qualities
b. Maintainable Design
c. Coupling and Cohesion
d. Software Design Strategies

72. _____ is a measure of independence of a module or component.
a. Cohesion
b. Coupling
c. Mentality
d. Cohesive

73. _____ means that different system components have loose or less reliance upon each other
a. Loose coupling
b. Tight coupling
c. Loose cohesion
d. Tight cohesion

74. _____are contrasting concepts but are indirectly related to each other.
a. Coupling and cohesion
b. Object Oriented & Function oriented
c. Flowchart and data flow
d. None of given

75. _____ is an internal property of a module whereas _____ is its relationship with other modules.
a. Coupling, cohesion
b. Cohesion, coupling
c. Object, function
d. Module, layering

76. _____ describes the intra-component linkages while _____ shows the inter-component linkages.
a. Coupling, cohesion
b. Cohesion, coupling
c. Object, function
d. Module, layering

77. Coupling measures the interdependence of two modules while cohesion measures the independence of a module.
    a. **Coupling, cohesion**
    b. Cohesion, coupling
    c. Object, function
    d. Module, layering
78. _____ is a technique in which we construct a model of an entity based upon its essential characteristics and ignore the inessential details.
    a. Encapsulation
    b. **Abstractions**
    c. Modularization
    d. Object Design
79. The technique that allowing us to look at its important external characteristic, at the same time, hiding its inner complexity.
    a. **Abstractions**
    b. De-encapsulation
    c. Encapsulation
    d. Hidden
80. Hiding the internal details is called _____
    a. Abstractions
    b. De-encapsulation
    c. **Encapsulation**
    d. Hidden
81. function oriented Design is also called _____
    a. Class oriented
    b. Scope Oriented
    c. Object oriented
    d. **Action oriented**
82. Briefly, inheritance denotes a
    a. **“kind of” relationship**
    b. “part of” relationship
    c. “has a” relationship
    d. None of given
83. In ---------- approach, data is decomposed according to functionality requirements.
    a. Object Oriented
    b. Function oriented
    c. Action oriented
    d. **Both B & C**
84. **In the _____ approach, decomposition of a problem revolves around data.**
    a. **Class oriented**
    b. **Function oriented**
    c. **Object Oriented**
    d. **Action oriented**
85. Briefly, aggregation denotes a
    a. “kind of” relationship
    b. **“part of” relationship**
    c. “has a” relationship
    d. None of given

86. _____ Paradigm focuses only on the functionality of a system and typically ignores the data until it is required.
    a. Object Oriented
    b. class oriented
    c. Module Oriented
    d. **Action Oriented**
87. _____paradigm focuses both on the functionality and the data at the same time.
    a. Object-oriented
    b. Action oriented
    c. Function oriented
    d. Inheritance
88. Which one of the following the oldest techniques to identify objects and their relationships.
    a. The Coad Methodology
    b. Abbot's Textual Analysis
    c. Dijsktra`s Approach
    d. None of given
89. The _____ diagram can be used to model simple sequential flow, branching, iteration, recursion and concurrency.
    a. Use case
    b. Dataflow
    c. Class
    d. Sequence
90. In the sequence diagram object are shown on the _____ axis.
    a. Y-axis
    b. Z-Axis
    c. X-Axis
    d. Object are not shown in the sequence diagram
91. Sequence diagrams can depict _____ different types of messages.
    a. 2
    b. 4
    c. 6
    d. 8
92. Collaboration diagrams have basically two types of components:
    a. Class & Object
    b. Use case & user
    c. Objects and messages.
    d. Function & Data
93. Sequence diagrams are best to see the flow of time. On the other hand, static object connections are best represented by _____ diagrams.
    a. Class diagram
    b. Sequence diagram
    c. Collaboration diagram
    d. Object design
94. UML provides _____ different mechanisms to document the dynamic behavior of the system.
    a. 3
    b. 5
    c. 4
    d. 2

95. In SRS _____ means that two different readers of the same document interpret the requirement differently.
    a. **Ambiguity**
    b. Clearness
    c. Self-deceptive
    d. None of given
96. Use case model component are
    a. Message, function
    b. Actor, message
    c. Cases, data
    d. **Cases, actor**
97. In the past, software was considered as a collection of _____ to transform that information from input to the output format.
    a. Code & Programming
    b. Data and sequence
    c. Algorithms and code
    d. **information and procedures**
98. **The process of productive use of scientific knowledge is called _____**
    a. **Software engineering**
    b. **Requirement engineering**
    c. **Engineering.**
    d. **Science**
99. "The application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software; is called
    a. Computer Science
    b. Engineering
    c. **Software engineering**
    d. **Requirement engineering**
100. **After reaching at a reasonable level of quality we do not try to improve the quality of software any further this law is called**
    a. **Balance law**
    b. **Saturated law**
    c. **Law of diminishing returns**
    d. **None of given**
101. **There are _____ basic phases of software development**
    a. **3**
    b. **5**
    c. **4**
    d. **2**
102. **In _____ SE phase we control the change in system, whether that change is in the form of enhancements or defect removal.**
    a. **Development**
    b. **Maintenance**
    c. **Definition**
    d. **Analysis**
103. **Following the Software Engineering Phases excepet the**
    a. **Mission**
    b. **Vision**
    c. **Maintenance**

d. **Development**

104. _____**as a statement of needs by a user that triggers him development of a program or system.**
   a. **Requirements analysis**
   b. **Requirement engineering**
   c. **Requirement**
   d. **Flow chart**

105. _____**add further detail to the business requirements.**
   a. **Functional requirement**
   b. **User requirements**
   c. **Non-Functional requirement**
   d. **None of given**

106. **Following all are the Requirements statement Characteristics except the:**
   a. **Correct**
   b. **Verifiable**
   c. **Prioritized**
   d. **Polite**

107. _____**collected from multiple sources might conflict.**
   a. **Business requirements**
   b. **Functional Requirement**
   c. **User Requirements**
   d. **Non-Functional requirement**

108. **All are the typical non-functional requirements are except the**
   a. Reliability.
   b. Feasible
   c. Availability
   d. Scalability.

109. **A** _____, sometimes called a level 0 data-flow **diagram**, is drawn in order to define and clarify the boundaries of the software system.
   a. **Data through**
   b. **context diagram**
   c. **Conceptual diagram**
   d. **Structure diagram**

110. **In a _____ model, boundaries of the system are defined by functionality that is handled by the system.**
   a. **In OOP Design**
   b. **In Function oriented**
   c. **use case**
   d. **None of given.**