

Total number of questions : 60

12249\_Software Modeling and Design

Time : 1hr

Max Marks : 50

N.B

- 1) All questions are Multiple Choice Questions having single correct option.
  - 2) Attempt any 50 questions out of 60.
  - 3) Use of calculator is allowed.
  - 4) Each question carries 1 Mark.
  - 5) Specially abled students are allowed 20 minutes extra for examination.
  - 6) Do not use pencils to darken answer.
  - 7) Use only black/blue ball point pen to darken the appropriate circle.
  - 8) No change will be allowed once the answer is marked on OMR Sheet.
  - 9) Rough work shall not be done on OMR sheet or on question paper.
  - 10) Darken ONLY ONE CIRCLE for each answer.
- 

**Q.no 1. Which of these comes under development attribute?**

A : Maintainability

B : Reusability

C : Performance

~~B : Maintainability & Reusability~~

**Q.no 2. Which Test Document describes the Exit Criteria of Testing?**

A : Test Case

~~B : Test Plan~~

C : Test Summary Report

D : Defect Report

**Q.no 3. A \_\_\_\_\_ is a condition during the life of an object during which it satisfies performs some activity or waits for some event.**

A : class

~~B : state~~

C : actor

D : component

**Q.no 4. The essential characteristics of an object that distinguish it from all other kinds of objects and thus provide crisply defined conceptual boundaries, relative to the perspective of the viewer is called**

A : Encapsulation

B : Modularity

C : Hierarchy

~~D : Abstraction~~

**Q.no 5. Which diagram in UML shows a complete of a modeled system at a specific time.**

A : Sequence

B : Collaboration

C : Class

~~D : Object~~

**Q.no 6. Which of the below is not a valid design pattern?**

A : Singleton

B : Factory

C : Command

~~D : Java~~

**Q.no 7. SDLC stands for**

~~A : System Development Life Cycle~~

B : Structure Design Life Cycle

C : System Design Life Cycle

D : Structure development Life Cycle

**Q.no 8. What does the SOAP specification define?**

~~A : A format for XML messaging~~

B : An interface to a business process

C : An Internet communications protocol

D : The payload contents for a Web service message

**Q.no 9. Which of the following is not regression test case?**

A : A representative sample of tests that will exercise all software functions

B : Additional tests that focus on software functions that are likely to be affected by the change

C : Tests that focus on the software components that have been changed

~~D : Low-level components are combined into clusters that perform a specific software sub-function~~

**Q.no 10. Which of the following statement is true concerning objects and/or classes?**

~~A : An object is an instance of a class.~~

B : A class is an instance of an object.

C : An object includes encapsulates only data.

D : A class includes encapsulates only data.

**Q.no 11. What are the characteristics does a good SAD consist of?**

A : Consistency, Feasibility, Adequacy

B : Completeness, Well-formedness

C : Reliability, Usability

~~D : Consistency, Feasibility, Adequacy, Completeness, Well-formedness~~

**Q.no 12. Which design pattern represents a way to access all the objects in a collection?**

~~A : Iterator pattern~~

B : Facade pattern

C : Builder pattern

D : Bridge pattern

**Q.no 13. Single inheritance, Multiple inheritance, and Aggregation comes under which inheritance?**

A : Modularity

B : Typing

~~C : Hierarchy~~

D : None of the mentioned

**Q.no 14. Which is a black box testing technique appropriate to all levels of testing?**

A : Acceptance testing

B : Regression testing

~~C : Equivalence partitioning~~

D : Quality assurance

**Q.no 15. Which of the following diagrams is used to model business workflows?**

A : Deployment diagram

~~B : Activity diagram~~

C : Use Case diagram

D : Interaction diagram

**Q.no 16. The object-oriented development life cycle is which of the following?**

~~A : Analysis, design, and implementation steps in the given order and using multiple iterations.~~

B : Analysis, design, and implementation steps in the given order and going through the steps no more than one time.

C : Analysis, design, and implementation steps in any order and using multiple iterations.

D : Analysis, design, and implementation steps in any order and going through the steps no more than one time.

**Q.no 17. What is that concept in type theory in which a single name may denote objects of many different classes that are related by some common super class referred to**

A : Monomorphism

B : Type Checking

☒ C : Polymorphism

D : Generalization

**Q.no 18. Which Design Pattern should you use when.... a class wants its subclasses to specify the objects it creates.**

A : Bridge

B : Strategy

C : Builder

☒ D : Factory Method

**Q.no 19. Which of the following pattern works as a bridge between two incompatible interfaces?**

A : Builder Pattern

☒ B : Adapter Pattern

C : Prototype Pattern

D : Filter Pattern

**Q.no 20. Which design pattern suggests multiple classes through which request is passed and multiple but only relevant classes carry out operations on the request?**

A : Singleton pattern

☒ B : Chain of responsibility pattern

C : State pattern

D : Bridge pattern

**Q.no 21. Test cases are designed during which of the following stages?**

- A : Test recording
- B : Test configuration
- C : Test planning
- ~~D : Test specification~~

**Q.no 22. If a component of the overall system is functionally complete and operates within that system independently from the functionality of the SOA architectural concept? other components, it is an example of which**

- ~~A : Modularity~~
- B : Extensibility
- C : Loose coupling
- D : Separation of concerns

**Q.no 23. What is testing process' first goal?**

- ~~A : Bug prevention~~
- B : Testing
- C : Execution
- D : Analyses

**Q.no 24. You want to avoid multiple inheritance. Which design pattern would you choose?**

- A : Abstraction-Occurrence Pattern
- ~~B : Player-Role Pattern~~
- C : General Hierarchy Pattern
- D : Singleton Pattern

**Q.no 25. Which of the following is used to model the life time of an object?**

- A : Use Case
- ~~B : Class~~
- ~~C : State Machine~~
- D : nterface

**Q.no 26. Which structure's view is orthogonal to the module and conceptual view?**

A : Module Structure

~~B : Process Structure~~

C : Uses Structure

D : Data flow

**Q.no 27. The fact that the same operation may apply to two or more classes is called what?**

A : Inheritance

~~B : Polymorphism~~

C : Encapsulation

D : Multiple classification

**Q.no 28. Which testing is an integration testing approach that is commonly used when "shrink- wrapped" software products are being developed?**

A : Regression Testing

B : Integration testing

~~C : Smoke testing~~

D : Validation testing

**Q.no 29. A class is divided into which of these compartments ?**

A : Name Compartment

B : Attribute Compartment

C : Operation Compartment

~~D : All of the mentioned~~

**Q.no 30. How do Web 2.0 applications communicate with SOA services?**

A : Both architectures use XML to ensure interoperability.

B : Web 2.0 technologies communicate using Remote Procedure Calls (RPC) to SOA services.

C : JavaScript Object Notation (JSON) provides an efficient data format for SOA services.

~~D : Asynchronous JavaScript + XML (Ajax) applications can make service requests from a Web browser.~~

**Q.no 31. Executable atomic computations are called as**

~~A : action states~~

B : activity states

C : composite states

D : concurrent states

**Q.no 32. The relationship between two states is called**

~~A : transition~~

B : state

C : association

D : generalization

**Q.no 33. Forward Engineering is possible for an Activity Diagram especially if the context of the diagram is**

~~A : an operation~~

B : a workflow

C : a class

D : a use case

**Q.no 34. An entity in ER Model is a real world being, which has some properties called\_\_\_\_\_ .**

~~A : Attributes~~

B : Relationship

C : Domain

D : path

**Q.no 35. In an Activity Diagram, organizing the activities into groups is called**



A : forking

B : joining

~~C : swimlane~~

D : synchronization

**Q.no 36. What is a key difference between a component and a service?**

A : A service is deployed once and a component is deployed many times.

B : A component is deployed once and a service is deployed many times.

C : A component has an interface and a service implements the interface.

~~D : A service has an interface and a component implements the interface.~~

**Q.no 37. Software mistakes during coding are known as**

A : errors

B : failures

~~C : bugs~~

D : defects

**Q.no 38. which diagrams are used to distribute files, libraries, and tables across topology of the hardware**

~~A : deployment~~

B : use case

C : sequence

D : collaboration

**Q.no 39. What is Decision Table Testing?**

~~A : Black Box Test Design Technique~~

B : White Box Test Design Technique

C : Gray Box Test Design Technique

D : Experience based Test Design Technique

**Q.no 40. What is “V” Model?**

A : Test Level

~~B : SDLC Model~~

C : Test Type

D : Test Design Technique

**Q.no 41. Components can be represented by which of the following?**

A : Component symbols

B : Stereotypes

C : Rectangular boxes

~~D : Component symbols & Stereotypes~~

**Q.no 42. For showing detailed design of procedures, which one of the following OOAD artifacts is the MOST useful?**

~~A : Interaction Diagrams~~

B : Activity Diagrams

C : Package Diagrams

D : State Diagrams

**Q.no 43. Change event is modeled by the keyword**

A : after

~~B : when~~

C : time

D : signal

**Q.no 44. Which level of Entity Relationship Diagram (ERD) models all entities and relationships ?**

A : Level 1

~~B : Level 2~~

C : Level 3

D : Level 4

**Q.no 45. You want to minimize development cost by reusing methods? Which design pattern would you choose?**

A : Adapter Pattern

B : Singleton Pattern

☒ C : Delegation pattern

D : Immutable Pattern

**Q.no 46. Which is not a type of incremental testing approach?**

A : Bottom up

B : Top down

☒ C : Big-bang

D : Functional incrimination

**Q.no 47. Which of the following is wrong with respect to a thread?**

A : Threads are light weight

B : Threads are modeled using stereotyped active classes

☒ C : Threads are nested inside another thread

D : Threads can initiate a control activity

**Q.no 48. Which among these are the rules to be considered to form Class diagrams?**

☒ A : Class symbols must have at least a name compartment

B : Compartment can be in random order

C : Attributes and operations can be listed at any suitable place

D : Operations

**Q.no 49. Which of the following are concerned with communication between objects?**

A : J2EE Design Patterns

☒ B : Behavioral Design Patterns

C : Creational Design Pattern

D : Structural Design Patterns

**Q.no 50. What does a component diagram consists of?**

A : Components, their Relationship to the environment

B : Packages and dependency

C : Internal structure

~~D : Internal structure, Components & their Relationship to the environment~~

**Q.no 51. Which model in system modelling depicts the static nature of the system ?**

A : Behavioral Model

B : Context Model

C : Data Model

~~D : Structural Model~~

**Q.no 52. What are the three different types of message arrows?**

A : Synchronous, asynchronous

B : Self, Multiplied, instance generator

~~C : Synchronous, Asynchronous, synchronous with instance creation~~

D : asynchronous with instance creation

**Q.no 53. Aggregation represents ?**

A : is\_a relationship

B : part\_of relationship

~~C : composed\_of relationship~~

D : none of above

**Q.no 54. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

☒ C : Statechart diagram

D : Object diagram

**Q.no 55. Which things in UML are the explanatory parts of UML models?**

A : Structural things

B : Behavioral things

C : Grouping things

☒ D : Annotational things

**Q.no 56. A link is an instance of What things**

A : Generalization

☒ B : Association

C : Dependency

D : Realization

**Q.no 57. Which of the following is present in a nested concurrent state machine?**

A : Initial State

B : Final State

C : History State

☒ D : Concurrent sub state

**Q.no 58. Aggregation is which of the following?**

☒ A : Expresses a part-of relationship and is a stronger form of an association relationship.

B : Expresses a part-of relationship and is a weaker form of an association relationship.

C : Expresses an is-a relationship and is a stronger form of an association relationship.

D : Expresses an is-a relationship and is a weaker form of an association relationship.

**Q.no 59. Components can be represented by which of the following?**

☒ A : Component symbols, Stereotypes

B : Rectangular boxes

C : Box

D : Circle

**Q.no 60. \_\_\_\_\_ relationship between use cases means that the base use case explicitly incorporates the behavior of another use case at a location specified in the base.**

A : Exclude

B : Extend

~~C : Include~~

D : Abstract

**Q.no 1. Requirement specification is carried out**

~~A : after requirements are determined~~

B : before requirements are determined

C : simultaneously with requirements determination

D : independent of requirements determination

**Q.no 2. An operation can be described as\_\_\_\_\_.**

A : Object

B : Class

C : Functions

~~D : Object & Class~~

**Q.no 3. In which of the following mechanisms, types of all variables and expressions are fixed at compilation time.**

A : Strong Typing

B : Weak Typing

~~C : Static Binding/ early binding~~

D : Dynamic Binding/ late binding

**Q.no 4. Which of the following is not a likely configuration of a Client-Server System?**

A : Single Client- Single Server

B : Single Client- Multiple Server System

C : Multiple Clients- Multiple Servers System

D : Multiple Clients- Single Server System

**Q.no 5. Class diagrams are not useful to .**

A : model simple collaborations

B : model the vocabulary of a system

C : model simple interactions

D : model a logical database schema

**Q.no 6. Which structure's view shows the mapping of software onto hardware?**

A : Module Structure

B : Process Structure

C : Physical Structure

D : Class Structure

**Q.no 7. The recurring aspects of designs are called design**

A : patterns

B : documents

C : structures

D : methods

**Q.no 8. State that is active after the completion of the transition is called**

A : source state

B : target state

C : history state

D : final state

**Q.no 9. Which Design Pattern should you use when.... you want to access an aggregate object's contents without exposing its internal representation.**

☒ A : Iterator

B : Composite

C : Proxy

D : Bridge

**Q.no 10. Which diagram shows the configuration of run-time processing elements?**

☒ A : Deployment diagram

B : Component diagram

C : Node diagram

D : ER-diagram

**Q.no 11. Which of the following is not a UML diagram?**

A : Class diagram

B : Object Diagram

☒ C : Interface diagram

D : Use case model

**Q.no 12. Which of the following is not real-time architectural patterns that are commonly used?**

☒ A : Asynchronous communication

B : Observe and React

C : Environmental Control

D : Process Pipeline

**Q.no 13. What is normally considered as an adjunct to the coding step**

A : Integration testing

☒ B : Unit testing

C : Completion of Testing

D : Regression Testing



**Q.no 14. Maintenance testing is performed using which methodology?**

A : Retesting

B : Sanity testing

☒ C : Breadth test and depth test

D : Confirmation testing

**Q.no 15. Which of the following are of non-local form ?**

A : Private

B : Protected and Packaged

C : Public

☒ D : Public, Protected and Packaged

**Q.no 16. Which one of the following is not a structural thing?**

A : Class

☒ B : Package

C : Use case

D : Node

**Q.no 17. The scenario of a use case is graphically represented using**

A : deployment diagram

☒ B : sequence diagram

C : use case diagram

D : interaction diagram

**Q.no 18. What can be requested from any object of the class to affect behavior?**

A : object

B : attribute

☒ C : operation

D : instance

**Q.no 19. The method of design encompassing the process of object oriented decomposition and a notation for depicting both logical and physical and as well as static and dynamic models of the system under design is known as:**

A : Object- Oriented Programming

B : Object- Oriented Design

C : Object- Oriented Analysis

D : Object- Oriented Parameter

**Q.no 20. Exceptions are**

A : internal signal

B : state

C : association

D : generalization

**Q.no 21. Which type of design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator?**

A : Creational Design Patterns

B : Structural Design Patterns

C : Behavioral Design Pattern

D : J2EE Design Patterns

**Q.no 22. Which of the following pattern creates object without exposing the creation logic to the client and refer to newly created object using a common interface?**

A : Factory Pattern

B : Abstract Factory Pattern

C : Singleton Pattern

D : Transfer Object Pattern

**Q.no 23. Which design pattern ensures that only one object of particular class gets created?**

A : Singleton pattern

B : Filter pattern

C : State pattern

D : Bridge pattern

**Q.no 24. Executable non atomic computations are called as**

A : action states

~~B : activity states~~

C : transitions

D : simple states

**Q.no 25. Constraints can be represented in UML by**

~~A : {text}~~

B : [text]

C : (text)

D : Constraint

**Q.no 26. \_\_\_\_\_ defines the properties of a data object and take on one of the three different characteristics**

A : data object

~~B : attributes~~

C : relationships

D : data object and attributes

**Q.no 27. Which UML diagrams has a static view.**

A : Collaboration

~~B : Use case~~

C : State chart

D : Activity

**Q.no 28. Which of the following is not a part of bug report?**

A : Test case

B : Output

C : Software Version

~~D : LOC~~

**Q.no 29. Which of the following evaluates to an absolute value of Time?**

A : Timing mark

B : Timing Constraint

~~C : Timing Expression~~

D : Timing Location

**Q.no 30. \_\_\_\_\_ are the Testers of System Testing?**

A : Developers

B : Business Analysts

~~C : Independent Testers~~

D : Customers

**Q.no 31. Which type they considered Activity diagram, use case diagram, collaboration diagram, and sequence diagram?**

A : non-behavioral

B : non-structural

C : structural

~~D : behavioral~~

**Q.no 32. Absolute time of an event is modeled as**

~~A : timing constraint~~

B : timing mark

C : timing expression

D : timing semantics

**Q.no 33. Time event is modeled by the keyword**

A : when

B : after

C : signal

D : change

**Q.no 34. A package diagram consists of the following?**

A : Package symbols

B : Groupings of Use cases, classes, components

C : Interface

D : Package symbols, Groupings of Use cases, classes & components

**Q.no 35. Which three characteristics of services indicate a mature SOA environment?**

A : Services are discoverable

B : Services use Web 2.0 technology

C : Services are exposed by an Enterprise Service Bus (ESB)

D : Services are composed into broader business functionality

**Q.no 36. Which of the following is the way of ensuring that the tests are actually testing code?**

A : Control structure testing

B : Complex path testing

C : Code coverage

D : Quality assurance of software

**Q.no 37. Actors are connected to use cases only by**

A : association relationship

B : generalization relationship

C : realization relationship

D : dependency relationship

**Q.no 38. Which diagram in UML emphasizes the time-ordering of messages?**

A : Activity

~~B : Sequence~~

C : Collaboration

D : Class

**Q.no 39. Which of these are necessary requirements for Iteration mechanism?**

A : Initialize

B : Completion Test

~~C : Information Hiding~~

D : Access Current

**Q.no 40. A state machine whose actions are all attached to states is called**

A : Activity diagram

B : Mealy machine

~~C : Moore machine~~

D : Component diagram

**Q.no 41. Which of these are types of nodes used in the deployment diagram?**

~~A : Device~~

B : Execution Environment

C : Artifact

D : Device & Execution Environment

**Q.no 42. A typical \_\_\_\_\_ program creates some remote objects, makes references to these objects accessible, and waits for clients to invoke methods on these objects.**

~~A : Server~~

B : Client

C : Thread

D : Concurrent

**Q.no 43. Which of the following describes the Adapter pattern correctly?**

A : This pattern builds a complex object using simple objects and using a step by step approach.

B : This pattern refers to creating duplicate object while keeping performance in mind.

~~C : This pattern works as a bridge between two incompatible interfaces.~~

D : This pattern is used when we need to decouple an abstraction from its implementation so that the two can vary independently.

**Q.no 44. Which of the following is doesn't included in the component diagram?**

A : Dependency

B : Generalization

C : Association

~~D : Aggregation~~

**Q.no 45. The UML supports event-based modeling using \_\_\_\_\_ diagrams.**

A : Deployment

B : Collaboration

~~C : State chart~~

D : Package

**Q.no 46. Which of the following is black-box oriented and can be accomplished by applying the same black-box methods discussed for conventional software?**

A : Conventional testing

B : OO system validation testing

C : Test case design

~~D : Both Conventional testing and OO system validation testing~~

**Q.no 47. What is Cyclomatic complexity?**

A : Black box testing

~~B : White box testing~~

C : Yellow box testing

D : Green box testing

**Q.no 48. Name an evaluation technique to assess the quality of test cases.**

☒ A : Mutation analysis

B : Validation

C : Verification

D : Performance analysis

**Q.no 49. 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

**Q.no 50. What is a collection of model elements called?**

A : Box

B : Dependency

C : UML packages

☒ D : Package members

**Q.no 51. Which of the following errors should not be tested when error handling is evaluated?**

☒ A : Error description is unintelligible

B : Error noted does not correspond to error encountered

C : Error condition causes system intervention prior to error handling

D : Error description provide enough information to assist in the location of the cause of the error

**Q.no 52. Activities and action taken on the data are represented by circle or round-edged rectangles is called \_\_\_\_ .**



A : Entities

B : Process

C : Data storage

D : Data flow

**Q.no 53. Which among the following are not the valid notations for package and component diagram?**

A : Notes

B : Box

C : Extension Mechanisms

D : Packages

**Q.no 54. Which of the following describes the Creational pattern correctly?**

A : This type of patterns provide a way to create objects while hiding the creation logic, rather

B : This type of patterns concern class and object composition. Concept of inheritance is used to than instantiating objects directly using new operator

C : This type of pattern are specifically concerned with communication between objects.

D : This type of pattern are specifically concerned with the presentation tier

**Q.no 55. A sequential state machine may have**

A : at most one initial state and one final state

B : at least one initial state and one final state

C : at most one initial state more than one final state

D : more than one initial state and at most one final state

**Q.no 56. What is Fault Masking?**

A : Creating a test case which does not reveal a fault

B : Error condition hiding another error condition

C : Masking a fault by developer

D : Masking a fault by a tester

**Q.no 57. 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

**Q.no 58. Which model describes the static structure of the system using object classes and their relationships?**

A : Sequence model

B : Subsystem model

C : Dynamic model

~~D : Structural model~~

**Q.no 59. In component diagrams, building block which is represented with two rectangles laid on left side is classified as**

A : type of components

B : interfaces

~~C : dependency relationships~~

D : association

**Q.no 60. .... can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.**

~~A : System Analysis~~

B : System Data

C : System Procedure

D : System Record

**Q.no 1. Single inheritance, Multiple inheritance, and Aggregation comes under which inheritance?**

A : Modularity

B : Typing

~~C : Hierarchy~~

D : None of the mentioned

**Q.no 2. Inside the states, the events are encountered to handle without leaving the state. This is known as**

A : state machine

B : state transition

~~C : internal transition~~

D : external transition

**Q.no 3. Which is a black box testing technique appropriate to all levels of testing?**

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**Q.no 4. Which of the following is not regression test case?**

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B : Additional tests that focus on software functions that are likely to be affected by the change

C : Tests that focus on the software components that have been changed

~~D : Low-level components are combined into clusters that perform a specific software sub-function~~

**Q.no 5. Exhaustive testing is**

A : always possible

B : practically possible

~~C : impractical but possible~~

D : impractical and impossible

**Q.no 6. Which of the following pattern is the basis of interaction management in many web-based systems?**

A : architecture

B : repository pattern

C : model-view-controller

D : different operating system

**Q.no 7. Which design pattern represents a way to access all the objects in a collection?**

A : Iterator pattern

B : Facade pattern

C : Builder pattern

D : Bridge pattern

**Q.no 8. Which diagram evolved from a desire to develop a procedural design representation that would not allow violation of the structured constructs?**

A : State transition diagram

B : Box diagram

C : ER diagram

D : Use case diagram

**Q.no 9. Effective testing will reduce \_\_\_\_\_ cost.**

A : maintenance

B : design

C : coding

D : documentation

**Q.no 10. A collection of operations that specify the services rendered by a class or component known as**

A : Class

B : Interaction

~~C : Interface~~

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**Q.no 11. Which structure's view is orthogonal to the module and conceptual view?**

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**Q.no 13. The object-oriented development life cycle is which of the following?**

~~A : Analysis, design, and implementation steps in the given order and using multiple iterations.~~

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C : Analysis, design, and implementation steps in any order and using multiple iterations.

D : Analysis, design, and implementation steps in any order and going through the steps no more than one time.

**Q.no 14. The \_\_\_\_\_ enables the software engineer to develop models of the information domain and functional domain at the same time**

~~A : data flow diagram~~

B : state transition diagram

C : control specification

D : activity diagram

**Q.no 15. Which things are dynamic parts of UML models?**

A : Structural things

~~B : Behavioral things~~

C : Grouping things

D : Annotational things

**Q.no 16. Which of these comes under development attribute?**

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A : Inheritance

~~B : Polymorphism~~

C : Encapsulation

D : Multiple classification

**Q.no 18. In OOD, the attributes(data variables) and methods( operation on the data) are bundled together is called \_\_\_\_\_ .**

A : Classes

B : Objects

~~C : Encapsulation~~

D : Inheritance

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☒ C : Synchronous, Asynchronous, Synchronous with instance creation

D : None of the mentioned

**Q.no 23. Which testing is an integration testing approach that is commonly used when “shrink- wrapped” software products are being developed?**

A : Regression Testing

B : Integration testing

☒ C : Smoke testing

D : Validation testing

**Q.no 24. Which of these is true with respect to interfaces?**

☒ A : Interfaces in component diagram defines relationship between components and environment

B : Interfaces realized by a class or a component are required interfaces

C : Interface on which a class or component depends are called provided interfaces

D : All of the mentioned

**Q.no 25. Which of the following is used to model the life time of an object?**

A : Use Case

B : Class

☒ C : State Machine

D : nterface

**Q.no 26. The essential characteristics of an object that distinguish it from all other kinds of objects and thus provide crisply defined conceptual boundaries, relative to the perspective of the viewer is called**

A : Encapsulation

B : Modularity

☒ C : Hierarchy

D : Abstraction

**Q.no 27. SDLC stands for**

☒ A : System Development Life Cycle

B : Structure Design Life Cycle

C : System Design Life Cycle

D : Structure development Life Cycle

**Q.no 28. What is UML?**

☒ A : UML is Unified Modeling Language.

B : Graphical language for visualizing artifacts of the system.

C : Allow to create a blue print of all the aspects of the system.

D : None of the mentioned

**Q.no 29. Which diagram in UML shows a complete of a modeled system at a specific time.**

A : Sequence



B : Collaboration

C : Class

~~D : Object~~

**Q.no 30. Which of the following statement is true concerning objects and/or classes?**

~~A : An object is an instance of a class.~~

B : A class is an instance of an object.

C : An object includes encapsulates only data.

D : A class includes encapsulates only data.

**Q.no 31. In Unified Modeling Language, diagrams that organize system elements into groups are classified as**

~~A : package diagrams~~

B : organized diagram

C : system diagrams

D : class diagrams

**Q.no 32. The principle of serial equivalence for distributed transactions says that**

~~A : When several transactions are executed concurrently, the result should be the same as if they had been executed in sequence~~

B : Concurrent transactions should always be executed in sequence

C : Sequential transactions should never be executed concurrently, because of the dangers of lost updates

D : Concurrent transactions should be atomic

**Q.no 33. which diagrams are used to distribute files, libraries, and tables across topology of the hardware**

~~A : deployment~~

B : use case

C : sequence

D : collaboration

**Q.no 34. Which structure describes units as abstraction of system's functional requirements?**

☒ A : Conceptual structure

☐ B : Module structure

☐ C : Physical structure

☐ D : Calls structure

**Q.no 35. What is the programming style of the object oriented conceptual model?**

☐ A : Invariant relationships

☐ B : Algorithms

☒ C : Classes and objects

☐ D : Goals, often expressed in a predicate calculus.

**Q.no 36. A \_\_\_\_\_ is a behavior that specifies the sequence of states an object goes through during its lifetime in response to events.**

☐ A : class

☒ B : state machine

☐ C : use case

☐ D : activity

**Q.no 37. Diagrams in unified modified language which are used to test class diagrams for accuracy purpose are called**

☒ A : deployment diagrams

☐ B : component diagrams

☐ C : object diagrams

☐ D : package diagrams

**Q.no 38. Which of the following is not a building block of UML?**

☐ A : Things

☐ B : Relationships

☐ C : Diagrams

~~D : pass~~

**Q.no 39. Forward Engineering is possible for an Activity Diagram especially if the context of the diagram is**

~~A : an operation~~

B : a workflow

C : a class

D : a use case

**Q.no 40. In Unified Modeling Language, diagrams which captures system static structure and provide foundation for other models is called**

A : deployment diagrams

~~B : class diagrams~~

C : component diagrams

D : object diagrams

**Q.no 41. Which of these are included in the product overview for SAD?**

A : product vision, assumptions, constraints

B : product scope

C : target markets, business requirements

~~D : product vision, assumptions, constraints, target markets & business requirements~~

**Q.no 42. Which SOA architectural concept is applied as an organization combines services to perform a business process?**

A : Modularity

~~B : Composition~~

C : Encapsulation

D : Separation of concerns

**Q.no 43. Classes and interfaces are a part of**

~~A : Structural things~~

B : Behavioral things

C : Grouping things

D : Annotational things

**Q.no 44. Which among these are the rules to be considered to form Class diagrams?**

~~A : Class symbols must have at least a name compartment~~

B : Compartment can be in random order

C : Attributes and operations can be listed at any suitable place

D : Operations

**Q.no 45. Activity diagram is a special kind of**

A : use case diagram

~~B : state chart diagram~~

C : interaction diagram

D : component diagram

**Q.no 46. Which view in architectural design shows the key abstractions in the system as objects or object classes?**

A : physical

B : development

~~C : logical~~

D : process

**Q.no 47. 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

**Q.no 48. Realization of a use case is specified by**

~~A : a collaboration~~

B : a component

C : a node

D : an activity

**Q.no 49. Why is messaging important to an SOA?**

A : Messaging improves the performance of complex environments.

B : Messaging implements separation of concerns resulting in faster development.

~~C : Messaging facilitates communication between distributed heterogeneous environments.~~

D : Messaging is used to communicate between a repository and an Enterprise Service Bus

**Q.no 50. is denotation for the time at which an event occurs.**

~~A : Timing mark~~

B : Timing constraint

C : Timing Expression

D : Timing response

**Q.no 51. The behavior of a use case is specified by**

~~A : flow of events~~

B : classes

C : components

D : nodes

**Q.no 52. Which model in system modelling depicts the static nature of the system ?**

A : Behavioral Model

B : Context Model

C : Data Model

~~D : Structural Model~~

**Q.no 53. Which of the following is present in a nested concurrent state machine?**

A : Initial State

B : Final State

C : History State

~~D : Concurrent sub state~~

**Q.no 54. Aggregation is which of the following?**

~~A : Expresses a part-of relationship and is a stronger form of an association relationship.~~

B : Expresses a part-of relationship and is a weaker form of an association relationship.

C : Expresses an is-a relationship and is a stronger form of an association relationship.

D : Expresses an is-a relationship and is a weaker form of an association relationship.

**Q.no 55. Composition is a stronger form of which of the following?**

~~A : Aggregation~~

B : Encapsulation

C : Inheritance

D : All of the above.

**Q.no 56. Which of the following diagram is used to model the vocabulary of a system?**

A : Object Diagram

B : Activity Diagram

~~C : Class diagram~~

D : Interaction Diagram

**Q.no 57. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

~~C : Statechart diagram~~

D : Object diagram

**Q.no 58. The object of \_\_\_\_\_ within an OO system is to design tests that have a high likelihood of uncovering plausible bugs.**

- A : Fault-based testing
- B : Integration testing
- C : Use-based testing
- D : Scenario-based testing

**Q.no 59. Which among these are the rules to be considered to form Class diagrams?**

- A : Class symbols must have at least a name compartment
- B : Compartment can be in random order
- C : Attributes and operations can be listed at any suitable place
- D : Classes are shown by circle

**Q.no 60. A package diagram consists of the following?**

- A : Groupings of Usecases, classes, components
- B : Interface
- C : Object & Class
- D : Sticks

**Q.no 1. A class is divided into which of these compartments ?**

- A : Name Compartment
- B : Attribute Compartment
- C : Operation Compartment
- D : All of the mentioned

**Q.no 2. How do Web 2.0 applications communicate with SOA services?**

- A : Both architectures use XML to ensure interoperability.
- B : Web 2.0 technologies communicate using Remote Procedure Calls (RPC) to SOA services.

C : JavaScript Object Notation (JSON) provides an efficient data format for SOA services.

D : Asynchronous JavaScript + XML (Ajax) applications can make service requests from a Web browser.

**Q.no 3. Which Design Pattern should you use when.... you want to access an aggregate object's contents without exposing its internal representation.**

A : Iterator

B : Composite

C : Poxy

D : Bridge

**Q.no 4. Which of the following is not a likely configuration of a Client-Server System?**

A : Single Client- Single Server

B : Single Client- Multiple Server System

C : Multiple Clients- Multiple Servers System

D : Multiple Clients- Single Server System

**Q.no 5. Which of the following is not real-time architectural patterns that are commonly used?**

A : Asynchronous communication

B : Observe and React

C : Environmental Control

D : Process Pipeline

**Q.no 6. Executable non atomic computations are called as**

A : action states

B : activity states

C : transitions

D : simple states

**Q.no 7. \_\_\_\_\_ are the Testers of System Testing?**



A : Developers

B : Business Analysts

~~C : Independent Testers~~

D : Customers

**Q.no 8. What is normally considered as an adjunct to the coding step**

A : Integration testing

~~B : Unit testing~~

C : Completion of Testing

D : Regression Testing

**Q.no 9. The recurring aspects of designs are called design**

~~A : patterns~~

B : documents

C : structures

D : methods

**Q.no 10. State that is active after the completion of the transition is called**

A : source state

~~B : target state~~

C : history state

D : final state

**Q.no 11. Which design pattern ensures that only one object of particular class gets created?**

~~A : Singleton pattern~~

B : Filter pattern

C : State pattern

D : Bridge pattern

**Q.no 12. Which of the following pattern creates object without exposing the creation logic to the client and refer to newly created object using a common interface?**

- ☒ A : Factory Pattern
- B : Abstract Factory Pattern
- C : Singleton Pattern
- D : Transfer Object Pattern

**Q.no 13. Which structure's view shows the mapping of software onto hardware?**

- A : Module Structure
- B : Process Structure
- ☒ C : Physical Structure
- D : Class Structure

**Q.no 14. \_\_\_\_\_ defines the properties of a data object and take on one of the three different characteristics**

- A : data object
- ☒ B : attributes
- C : relationships
- D : data object and attributes

**Q.no 15. Which design pattern suggests multiple classes through which request is passed and multiple but only relevant classes carry out operations on the request?**

- A : Singleton pattern
- ☒ B : Chain of responsibility pattern
- C : State pattern
- D : Bridge pattern

**Q.no 16. Which type of design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator?**

- ☒ A : Creational Design Patterns

B : Structural Design Patterns

C : Behavioral Design Pattern

D : J2EE Design Patterns

**Q.no 17. Which of the below is not a valid design pattern?**

A : Singleton

B : Factory

C : Command

~~D : Java~~

**Q.no 18. What are the characteristics does a good SAD consist of?**

A : Consistency, Feasibility, Adequacy

B : Completeness, Well-formedness

C : Reliability, Usability

~~D : Consistency, Feasibility, Adequacy, Completeness, Well-formedness~~

**Q.no 19. In which of the following mechanisms, types of all variables and expressions are fixed at compilation time.**

A : Strong Typing

B : Weak Typing

~~C : Static Binding/ early binding~~

~~D : Dynamic Binding/ late binding~~

**Q.no 20. Which one of the following is not a structural thing?**

A : Class

~~B : Package~~

~~C : Use case~~

D : Node

**Q.no 21. A \_\_\_\_\_ is a condition during the life of an object during which it satisfies performs some activity or waits for some event.**

A : class

B : state

C : actor

D : component

**Q.no 22. Which of the following are of non-local form ?**

A : Private

B : Protected and Packaged

C : Public

D : Public, Protected and Packaged

**Q.no 23. An operation can be described as\_\_\_\_\_.**

A : Object

B : Class

C : Functions

D : Object & Class

**Q.no 24. The method of design encompassing the process of object oriented decomposition and a notation for depicting both logical and physical and as well as static and dynamic models of the system under design is known as:**

A : Object- Oriented Programming

B : Object- Oriented Design

C : Object- Oriented Analysis

D : Object- Oriented Parameter

**Q.no 25. You want to avoid multiple inheritance. Which design pattern would you choose?**

A : Abstraction-Occurrence Pattern

B : Player-Role Pattern

C : General Hierarchy Pattern

D : Singleton Pattern

**Q.no 26. Test cases are designed during which of the following stages?**

- A : Test recording
- B : Test configuration
- C : Test planning
- ~~D : Test specification~~

**Q.no 27. Which Design Pattern should you use when.... a class wants its subclasses to specify the objects it creates.**

- A : Bridge
- B : Strategy
- C : Builder
- ~~D : Factory Method~~

**Q.no 28. Which of the following is not a UML diagram?**

- A : Class diagram
- B : Object Diagram
- ~~C : Interface diagram~~
- D : Use case model

**Q.no 29. What can be requested from any object of the class to affect behavior?**

- A : object
- B : attribute
- ~~C : operation~~
- D : instance

**Q.no 30. Constraints can be represented in UML by**

- ~~A : {text}~~
- B : [text]
- C : (text)
- D : Constraint

**Q.no 31. In an Activity Diagram, organizing the activities into groups is called**

A : forking

B : joining

☒ C : swimlane

D : synchronization

**Q.no 32. Which level of Entity Relationship Diagram (ERD) models all entities and relationships ?**

A : Level 1

☒ B : Level 2

C : Level 3

D : Level 4

**Q.no 33. What is “V” Model?**

A : Test Level

☒ B : SDLC Model

C : Test Type

D : Test Design Technique

**Q.no 34. Which of the following is incorrect in deployment diagram?**

A : Communication connections between nodes are shown by communication paths

☒ B : Communication paths are represented by dotted lines

C : Artifacts are deployed inside nodes where they reside and execute

D : None of the mentioned

**Q.no 35. Which of the following term is best defined by the statement:”a structural relationship that specifies that objects of one thing are connected to objects of another”?**

☒ A : Association

B : Aggregation

C : Realization

D : Generalization

**Q.no 36. For showing detailed design of procedures, which one of the following OOAD artifacts is the MOST useful?**

☒ A : Interaction Diagrams

☐ B : Activity Diagrams

☐ C : Package Diagrams

☐ D : State Diagrams

**Q.no 37. Which class that can have only one instance?**

☐ A : Adaptor Class

☐ B : Proxy Class

☒ C : Singleton Class

☐ D : Factory class

**Q.no 38. Which design pattern defines one-to-many dependency among objects?**

☐ A : Singleton pattern

☐ B : Facade Pattern

☒ C : Observer pattern

☐ D : Factory method pattern

**Q.no 39. Client-server architecture holds the client responsible for \_\_\_\_ and server is only responsible for \_\_\_\_.**

☐ A : Application Logic; Presentation Logic

☒ B : Presentation Logic; Data Access Logic and Data Storage

☐ C : Data Access Logic and Presentation Logic; Data Storage

☐ D : Application Logic; Data Storage

**Q.no 40. Which of the following view shows that the system is composed of interacting processes at run time?**

☐ A : physical

☐ B : development

C : logical

~~D : process~~

**Q.no 41. Which is not a type of incremental testing approach?**

A : Bottom up

B : Top down

~~C : Big-bang~~

D : Functional incrimination

**Q.no 42. Which type they considered Activity diagram, use case diagram, collaboration diagram, and sequence diagram?**

A : non-behavioral

B : non-structural

C : structural

~~D : behavioral~~

**Q.no 43. Which of the following is not included in Architectural design decisions?**

A : type of application

B : distribution of the system

C : architectural styles

~~D : testing the system~~

**Q.no 44. Which of these are necessary requirements for Iteration mechanism?**

A : Initialize

B : Completion Test

~~C : Information Hiding~~

D : Access Current

**Q.no 45. Which of the following is not one of the use of component diagram?**

A : To model physical databases

B : To model executable releases



C : To model general view

~~D : To model adaptable systems~~

**Q.no 46. A state that has substates, that is nested states, is called**

~~A : composite state~~

B : history state

C : target state

D : source state

**Q.no 47. Which of the following is wrong with respect to a thread?**

A : Threads are light weight

B : Threads are modeled using stereotyped active classes

~~C : Threads are nested inside another thread~~

D : Threads can initiate a control activity

**Q.no 48. Which of the following are concerned with communication between objects?**

A : J2EE Design Patterns

~~B : Behavioral Design Patterns~~

C : Creational Design Pattern

D : Structural Design Patterns

**Q.no 49. Which of the following is black-box oriented and can be accomplished by applying the same black-box methods discussed for conventional software?**

A : Conventional testing

B : OO system validation testing

C : Test case design

~~D : Both Conventional testing and OO system validation testing~~

**Q.no 50. Components can be represented by which of the following?**

A : Component symbols

B : Stereotypes

C : Rectangular boxes

~~D : Component symbols & Stereotypes~~

**Q.no 51. Which of the following errors should not be tested when error handling is evaluated?**

~~A : Error description is unintelligible~~

B : Error noted does not correspond to error encountered

C : Error condition causes system intervention prior to error handling

D : Error description provide enough information to assist in the location of the cause of the error

**Q.no 52. Aggregation represents ?**

A : is\_a relationship

B : part\_of relationship

~~C : composed\_of relationship~~

D : none of above

**Q.no 53. What is Fault Masking?**

A : Creating a test case which does not reveal a fault

~~B : Error condition hiding another error condition~~

C : Masking a fault by developer

D : Masking a fault by a tester

**Q.no 54. Which things in UML are the explanatory parts of UML models?**

A : Structural things

B : Behavioral things

C : Grouping things

~~D : Annotational things~~

**Q.no 55. What are the three different types of message arrows?**

A : Synchronous, asynchronous

B : Self, Multiplied, instance generator

~~C : Synchronous, Asynchronous, synchronous with instance creation~~

D : asynchronous with instance creation

**Q.no 56. .... can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.**

~~A : System Analysis~~

B : System Data

C : System Procedure

D : System Record

**Q.no 57. What is Six Sigma?**

A : It is the most widely used strategy for statistical quality assurance

B : The “Six Sigma” refers to six standard deviations

~~C : It is the most widely used strategy for statistical quality assurance AND The “Six Sigma” refers to six standard deviations~~

D : A Formal Technical Review(FTR) guideline for quality walkthrough or inspection

**Q.no 58. Components can be represented by which of the following?**

~~A : Component symbols,Stereotypes~~

B : Rectangular boxes

C : Box

D : Circle

**Q.no 59. In component diagrams, building block which is represented with two rectangles laid on left side is classified as**

A : type of components

B : interfaces

~~C : dependency relationships~~

D : association

**Q.no 60. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

~~C : Statechart diagram~~

D : Object diagram

**Q.no 1. The scenario of a use case is graphically represented using**

A : deployment diagram

~~B : sequence diagram~~

C : use case diagram

D : interaction diagram

**Q.no 2. In OOD, the attributes(data variables) and methods( operation on the data) are bundled together is called \_\_\_\_\_ .**

A : Classes

B : Objects

~~C : Encapsulation~~

D : Inheritance

**Q.no 3. What does the SOAP specification define?**

~~A : A format for XML messaging~~

B : An interface to a business process

C : An Internet communications protocol

D : The payload contents for a Web service message

**Q.no 4. The essential characteristics of an object that distinguish it from all other kinds of objects and thus provide crisply defined conceptual boundaries, relative to the perspective of the viewer is called**

A : Encapsulation

B : Modularity

C : Hierarchy

~~D : Abstraction~~

**Q.no 5. Which of the following diagrams is used to model business workflows?**

A : Deployment diagram

~~B : Activity diagram~~

C : Use Case diagram

D : Interaction diagram

**Q.no 6. The \_\_\_\_\_ enables the software engineer to develop models of the information domain and functional domain at the same time**

~~A : data flow diagram~~

B : state transition diagram

C : control specification

D : activity diagram

**Q.no 7. Which of these comes under development attribute?**

A : Maintainability

B : Reusability

C : Performance

~~D : Maintainability & Reusability~~

**Q.no 8. Which diagram evolved from a desire to develop a procedural design representation that would not allow violation of the structured constructs?**

A : State transition diagram

~~B : Box diagram~~

C : ER diagram

D : Use case diagram

**Q.no 9. Which design pattern represents a way to access all the objects in a collection?**

~~A : Iterator pattern~~

B : Facade pattern

C : Builder pattern

D : Bridge pattern

**Q.no 10. Exhaustive testing is**

A : always possible

B : practically possible

~~C : impractical but possible~~

D : impractical and impossible

**Q.no 11. Which diagram in UML shows a complete of a modeled system at a specific time.**

A : Sequence

B : Collaboration

C : Class

~~D : Object~~

**Q.no 12. Which Test Document describes the Exit Criteria of Testing?**

A : Test Case

~~B : Test Plan~~

C : Test Summary Report

D : Defect Report

**Q.no 13. Which of the following evaluates to an absolute value of Time?**

A : Timing mark

B : Timing Constraint

~~C : Timing Expression~~

D : Timing Location

**Q.no 14. What is UML?**

~~A : UML is Unified Modeling Language.~~

B : Graphical language for visualizing artifacts of the system.

C : Allow to create a blue print of all the aspects of the system.

D : None of the mentioned

**Q.no 15. Which diagram shows the configuration of run-time processing elements?**

☒ A : Deployment diagram

B : Component diagram

C : Node diagram

D : ER-diagram

**Q.no 16. Class diagrams are not useful to .**

A : model simple collaborations

B : model the vocabulary of a system

☒ C : model simple interactions

D : model a logical database schema

**Q.no 17. Which of the following is not a part of bug report?**

A : Test case

B : Output

C : Software Version

☒ D : LOC

**Q.no 18. Which of the following pattern is the basis of interaction management in many web-based systems?**

A : architecture

B : repository pattern

☒ C : model-view-controller

D : different operating system

**Q.no 19. Exceptions are**

A : internal signal

B : state

C : association

D : generalization

**Q.no 20. Requirement specification is carried out**

A : after requirements are determined

B : before requirements are determined

C : simultaneously with requirements determination

D : independent of requirements determination

**Q.no 21. Which UML diagrams has a static view.**

A : Collaboration

B : Use case

C : State chart

D : Activity

**Q.no 22. The object-oriented development life cycle is which of the following?**

A : Analysis, design, and implementation steps in the given order and using multiple iterations.

B : Analysis, design, and implementation steps in the given order and going through the steps no more than one time.

C : Analysis, design, and implementation steps in any order and using multiple iterations.

D : Analysis, design, and implementation steps in any order and going through the steps no more than one time.

**Q.no 23. Inside the states, the events are encountered to handle without leaving the state. This is known as**

A : state machine

B : state transition

C : internal transition



D : external transition

**Q.no 24. What is testing process' first goal?**

☒ A : Bug prevention

☐ B : Testing

☐ C : Execution

☐ D : Analyses

**Q.no 25. Which is a black box testing technique appropriate to all levels of testing?**

☐ A : Acceptance testing

☐ B : Regression testing

☒ C : Equivalence partitioning

☐ D : Quality assurance

**Q.no 26. Maintenance testing is performed using which methodology?**

☐ A : Retesting

☐ B : Sanity testing

☒ C : Breadth test and depth test

☐ D : Confirmation testing

**Q.no 27. If a component of the overall system is functionally complete and operates within that system independently from the functionality of the SOA architectural concept? other components, it is an example of which**

☒ A : Modularity

☐ B : Extensibility

☐ C : Loose coupling

☐ D : Separation of concerns

**Q.no 28. Which of these is true with respect to interfaces?**

☒ A : Interfaces in component diagram defines relationship between components and environment

B : Interfaces realized by a class or a component are required interfaces

C : Interface on which a class or component depends are called provided interfaces

D : All of the mentioned

**Q.no 29. The fact that the same operation may apply to two or more classes is called what?**

A : Inheritance

☒ B : Polymorphism

C : Encapsulation

D : Multiple classification

**Q.no 30. What is that concept in type theory in which a single name may denote objects of many different classes that are related by some common super class referred to**

A : Monomorphism

☒ B : Type Checking

C : Polymorphism

D : Generalization

**Q.no 31. Software mistakes during coding are known as**

A : errors

B : failures

☒ C : bugs

D : defects

**Q.no 32. Which of the following describes the Adapter pattern correctly?**

A : This pattern builds a complex object using simple objects and using a step by step approach.

B : This pattern refers to creating duplicate object while keeping performance in mind.

☒ C : This pattern works as a bridge between two incompatible interfaces.

D : This pattern is used when we need to decouple an abstraction from its implementation so that the two can vary independently.

**Q.no 33. Change event is modeled by the keyword**

A : after

~~B : when~~

C : time

D : signal

**Q.no 34. which diagram is used to show interactions between messages are classified as?**

A : activity

B : state chart

~~C : collaboration~~

D : object lifeline

**Q.no 35. Actors are connected to use cases only by**

~~A : association relationship~~

B : generalization relationship

C : realization relationship

D : dependency relationship

**Q.no 36. Which among these are the common notations for deployment diagrams?**

~~A : Artifacts and nodes~~

B : Stereotypes

C : Components

D : Usecase

**Q.no 37. Which of the following is the way of ensuring that the tests are actually testing code?**

A : Control structure testing

B : Complex path testing

~~C : Code coverage~~

D : Quality assurance of software

**Q.no 38. Realization of a use case is specified by**

A : a collaboration

B : a component

C : a node

D : an activity

**Q.no 39. who consider diagrams as a type of Class diagram, component diagram, object diagram, and deployment diagram?**

A : structural

B : behavioral

C : non-behavioral

D : non structural

**Q.no 40. Which of the following is not a building block of UML?**

A : Things

B : Relationships

C : Diagrams

D : pass

**Q.no 41. What does a component diagram consists of?**

A : Components, their Relationship to the environment

B : Packages and dependency

C : Internal structure

D : Internal structure, Components & their Relationship to the environment

**Q.no 42. Which of these are types of nodes used in the deployment diagram?**

A : Device

B : Execution Environment

C : Artifact

D : Device & Execution Environment

**Q.no 43. Why is messaging important to an SOA?**

A : Messaging improves the performance of complex environments.

B : Messaging implements separation of concerns resulting in faster development.

C : Messaging facilitates communication between distributed heterogeneous environments.

D : Messaging is used to communicate between a repository and an Enterprise Service Bus

**Q.no 44. The relationship between two states is called**

A : transition

B : state

C : association

D : generalization

**Q.no 45. You want to minimize development cost by reusing methods? Which design pattern would you choose?**

A : Adapter Pattern

B : Singleton Pattern

C : Delegation pattern

D : Immutable Pattern

**Q.no 46. Acceptance testing is also known as**

A : Grey box testing

B : White box testing

C : Alpha Testing

D : Beta testing

**Q.no 47. What is Decision Table Testing?**

A : Black Box Test Design Technique

B : White Box Test Design Technique

C : Gray Box Test Design Technique

D : Experience based Test Design Technique

**Q.no 48. Which of the following diagram is used to model the distribution of objects?**

☒ A : Object Diagram

B : Activity Diagram

C : State Chart Diagram

D : Interaction Diagram

**Q.no 49. In Unified Modeling Language, diagrams that organize system elements into groups are classified as**

☒ A : package diagrams

B : organized diagram

C : system diagrams

D : class diagrams

**Q.no 50. Forward Engineering is possible for an Activity Diagram especially if the context of the diagram is**

☒ A : an operation

B : a workflow

C : a class

D : a use case

**Q.no 51. The object of \_\_\_\_\_ within an OO system is to design tests that have a high likelihood of uncovering plausible bugs.**

☒ A : Fault-based testing

B : Integration testing

C : Use-based testing

D : Scenario-based testing

**Q.no 52. Which of the following describes the Creational pattern correctly?**

~~A : This type of patterns provide a way to create objects while hiding the creation logic, rather~~

B : This type of patterns concern class and object composition. Concept of inheritance is used to than instantiating objects directly using new opreator

C : This type of pattern are specifically concerned with communication between objects.

D : This type of pattern are specifically concerned with the presentation tier

**Q.no 53. Which of the following is present in a nested concurrent state machine?**

A : Initial State

B : Final State

C : History State

~~D : Concurrent sub state~~

**Q.no 54. Which of the following errors should not be tested when error handling is evaluated?**

~~A : Error description is unintelligible~~

B : Error noted does not correspond to error encountered

C : Error condition causes system intervention prior to error handling

D : Error description provide enough information to assist in the location of the cause of the error

**Q.no 55. 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~~

**Q.no 56. A link is an instance of What things**

A : Generalization

~~B : Association~~

C : Dependency

D : Realization

**Q.no 57. The behavior of a use case is specified by**

~~A : flow of events~~

B : classes

C : components

D : nodes

**Q.no 58. Aggregation is which of the following?**

~~A : Expresses a part-of relationship and is a stronger form of an association relationship.~~

B : Expresses a part-of relationship and is a weaker form of an association relationship.

C : Expresses an is-a relationship and is a stronger form of an association relationship.

D : Expresses an is-a relationship and is a weaker form of an association relationship.

**Q.no 59. A sequential state machine may have**

~~A : at most one initial state and one final state~~

B : at least one initial state and one final state

C : at most one initial state more than one final state

D : more than one initial state and at most one final state

**Q.no 60. Which model describes the static structure of the system using object classes and their relationships?**

A : Sequence model

B : Subsystem model

C : Dynamic model

~~D : Structural model~~

**Q.no 1. Which of the following is not regression test case?**

A : A representative sample of tests that will exercise all software functions



B : Additional tests that focus on software functions that are likely to be affected by the change

C : Tests that focus on the software components that have been changed

~~D : Low-level components are combined into clusters that perform a specific software sub-function~~

**Q.no 2. Which design pattern suggests multiple classes through which request is passed and multiple but only relevant classes carry out operations on the request?**

A : Singleton pattern

~~B : Chain of responsibility pattern~~

C : State pattern

D : Bridge pattern

**Q.no 3. Which of the following pattern works as a bridge between two incompatible interfaces?**

A : Builder Pattern

~~B : Adapter Pattern~~

C : Prototype Pattern

D : Filter Pattern

**Q.no 4. Which structure's view shows the mapping of software onto hardware?**

A : Module Structure

B : Process Structure

~~C : Physical Structure~~

D : Class Structure

**Q.no 5. Which of the following pattern creates object without exposing the creation logic to the client and refer to newly created object using a common interface?**

~~A : Factory Pattern~~

B : Abstract Factory Pattern

C : Singleton Pattern

D : Transfer Object Pattern

**Q.no 6. SDLC stands for**

☒ A : System Development Life Cycle

B : Structure Design Life Cycle

C : System Design Life Cycle

D : Structure development Life Cycle

**Q.no 7. Which of the following is not a likely configuration of a Client-Server System?**

A : Single Client- Single Server

☒ B : Single Client- Multiple Server System

C : Multiple Clients- Multiple Servers System

D : Multiple Clients- Single Server System

**Q.no 8. Which type of design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator?**

☒ A : Creational Design Patterns

B : Structural Design Patterns

C : Behavioral Design Pattern

D : J2EE Design Patterns

**Q.no 9. Constraints can be represented in UML by**

☒ A : {text}

B : [text]

C : (text)

D : Constraint

**Q.no 10. Which structure's view is orthogonal to the module and conceptual view?**

A : Module Structure

☒ B : Process Structure

C : Uses Structure

D : Data flow

**Q.no 11. The recurring aspects of designs are called design**

☒ A : patterns

B : documents

C : structures

D : methods

**Q.no 12. \_\_\_\_\_ defines the properties of a data object and take on one of the three different characteristics**

A : data object

☒ B : attributes

C : relationships

D : data object and attributes

**Q.no 13. What can be requested from any object of the class to affect behavior?**

A : object

B : attribute

☒ C : operation

D : instance

**Q.no 14. Which of the following statement is true concerning objects and/or classes?**

☒ A : An object is an instance of a class.

B : A class is an instance of an object.

C : An object includes encapsulates only data.

D : A class includes encapsulates only data.

**Q.no 15. Which of the following are of non-local form ?**

A : Private

B : Protected and Packaged

C : Public

~~D : Public, Protected and Packaged~~

**Q.no 16. Test cases are designed during which of the following stages?**

A : Test recording

B : Test configuration

C : Test planning

~~D : Test specification~~

**Q.no 17. Which one of the following is not a structural thing?**

A : Class

~~B : Package~~

C : Use case

D : Node

**Q.no 18. A \_\_\_\_\_ is a condition during the life of an object during which it satisfies performs some activity or waits for some event.**

A : class

~~B : state~~

C : actor

D : component

**Q.no 19. Which testing is an integration testing approach that is commonly used when “shrink- wrapped” software products are being developed?**

A : Regression Testing

B : Integration testing

~~C : Smoke testing~~

D : Validation testing

**Q.no 20. Which Design Pattern should you use when.... a class wants its subclasses to specify the objects it creates.**

A : Bridge

B : Strategy

C : Builder

~~D : Factory Method~~

**Q.no 21. A class is divided into which of these compartments ?**

A : Name Compartment

B : Attribute Compartment

C : Operation Compartment

~~D : All of the mentioned~~

**Q.no 22. Which design pattern ensures that only one object of particular class gets created?**

~~A : Singleton pattern~~

B : Filter pattern

C : State pattern

D : Bridge pattern

**Q.no 23. The method of design encompassing the process of object oriented decomposition and a notation for depicting both logical and physical and as well as static and dynamic models of the system under design is known as:**

A : Object- Oriented Programming

~~B : Object- Oriented Design~~

C : Object- Oriented Analysis

D : Object- Oriented Parameter

**Q.no 24. Effective testing will reduce \_\_\_\_\_ cost.**

~~A : maintenance~~

B : design

C : coding

D : documentation

**Q.no 25. Which Design Pattern should you use when.... you want to access an aggregate object's contents without exposing its internal representation.**

~~A : Iterator~~

B : Composite

C : Proxy

D : Bridge

**Q.no 26. Which of the following is not a UML diagram?**

A : Class diagram

B : Object Diagram

~~C : Interface diagram~~

D : Use case model

**Q.no 27. What are the characteristics does a good SAD consist of?**

A : Consistency, Feasibility, Adequacy

B : Completeness, Well-formedness

C : Reliability, Usability

~~D : Consistency, Feasibility, Adequacy, Completeness, Well-formedness~~

**Q.no 28. Which things are dynamic parts of UML models?**

A : Structural things

~~B : Behavioral things~~

C : Grouping things

D : Annotational things

**Q.no 29. ————— are the Testers of System Testing?**

A : Developers

B : Business Analysts

~~C : Independent Testers~~

D : Customers

**Q.no 30. Which of the following is not real-time architectural patterns that are commonly used?**

☒ A : Asynchronous communication

☐ B : Observe and React

☐ C : Environmental Control

☐ D : Process Pipeline

**Q.no 31. Classes and interfaces are a part of**

☒ A : Structural things

☐ B : Behavioral things

☐ C : Grouping things

☐ D : Annotational things

**Q.no 32. Which of the following is black-box oriented and can be accomplished by applying the same black-box methods discussed for conventional software?**

☐ A : Conventional testing

☐ B : OO system validation testing

☐ C : Test case design

☒ D : Both Conventional testing and OO system validation testing

**Q.no 33. Which among these are the rules to be considered to form Class diagrams?**

☒ A : Class symbols must have at least a name compartment

☐ B : Compartment can be in random order

☐ C : Attributes and operations can be listed at any suitable place

☐ D : Operations

**Q.no 34. A \_\_\_\_\_ is a behavior that specifies the sequence of states an object goes through during its lifetime in response to events.**

☐ A : class

☒ B : state machine

C : use case

D : activity

**Q.no 35. Activity diagram is a special kind of**

A : use case diagram

~~B : state chart diagram~~

C : interaction diagram

D : component diagram

**Q.no 36. A typical \_\_\_\_\_ program creates some remote objects, makes references to these objects accessible, and waits for clients to invoke methods on these objects.**

~~A : Server~~

B : Client

C : Thread

D : Concurrent

**Q.no 37. In Unified Modeling Language, diagrams which captures system static structure and provide foundation for other models is called**

A : deployment diagrams

~~B : class diagrams~~

C : component diagrams

D : object diagrams

**Q.no 38. Diagrams in unified modified language which are used to test class diagrams for accuracy purpose are called**

~~A : deployment diagrams~~

B : component diagrams

C : object diagrams

D : package diagrams

**Q.no 39. Which of the following is incorrect in the deployment diagram?**



A : Communication connections between nodes are shown by communication paths

~~B : Communication paths are represented by dotted lines~~

C : Artifacts are deployed inside nodes where they reside and execute

D : Nodes are not useful

**Q.no 40. Which structure describes units as abstraction of system's functional requirements?**

~~A : Conceptual structure~~

B : Module structure

C : Physical structure

D : Calls structure

**Q.no 41. is denotation for the time at which an event occurs.**

~~A : Timing mark~~

B : Timing constraint

C : Timing Expression

D : Timing response

**Q.no 42. A package diagram consists of the following?**

A : Package symbols

B : Groupings of Use cases, classes, components

C : Interface

~~D : Package symbols, Groupings of Use cases, classes & components~~

**Q.no 43. Which SOA architectural concept is applied as an organization combines services to perform a business process?**

A : Modularity

~~B : Composition~~

C : Encapsulation

D : Separation of concerns

**Q.no 44. Client-server architecture holds the client responsible for \_\_\_\_ and server is only responsible for \_\_\_\_.**

A : Application Logic; Presentation Logic

B : Presentation Logic; Data Access Logic and Data Storage

C : Data Access Logic and Presentation Logic; Data Storage

D : Application Logic; Data Storage

**Q.no 45. Which of the following is doesn't included in the component diagram?**

A : Dependency

B : Generalization

C : Association

D : Aggregation

**Q.no 46. Components can be represented by which of the following?**

A : Component symbols

B : Stereotypes

C : Rectangular boxes

D : Component symbols & Stereotypes

**Q.no 47. What is a key difference between a component and a service?**

A : A service is deployed once and a component is deployed many times.

B : A component is deployed once and a service is deployed many times.

C : A component has an interface and a service implements the interface.

D : A service has an interface and a component implements the interface.

**Q.no 48. An entity in ER Model is a real world being, which has some properties called \_\_\_\_ .**

A : Attributes

B : Relationship

C : Domain

D : path

**Q.no 49. In an Activity Diagram, organizing the activities into groups is called**

A : forking

B : joining

~~C : swimlane~~

D : synchronization

**Q.no 50. Which diagram in UML emphasizes the time-ordering of messages?**

A : Activity

~~B : Sequence~~

C : Collaboration

D : Class

**Q.no 51. A package diagram consists of the following?**

~~A : Groupings of Usecases, classes, components~~

B : Interface

C : Object & Class

D : Sticks

**Q.no 52. .... can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.**

~~A : System Analysis~~

B : System Data

C : System Procedure

D : System Record

**Q.no 53. Which among the following are not the valid notations for package and component diagram?**

A : Notes

~~B : Box~~

C : Extension Mechanisms

D : Packages

**Q.no 54. Which model in system modelling depicts the static nature of the system ?**

A : Behavioral Model

B : Context Model

C : Data Model

~~D : Structural Model~~

**Q.no 55. \_\_\_\_\_ relationship between use cases means that the base use case explicitly incorporates the behavior of another use case at a location specified in the base.**

A : Exclude

B : Extend

~~C : Include~~

D : Abstract

**Q.no 56. What is Six Sigma?**

A : It is the most widely used strategy for statistical quality assurance

B : The “Six Sigma” refers to six standard deviations

~~C : It is the most widely used strategy for statistical quality assurance AND The “Six Sigma” refers to six standard deviations~~

D : A Formal Technical Review(FTR) guideline for quality walkthrough or inspection

**Q.no 57. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

~~C : Statechart diagram~~

D : Object diagram

**Q.no 58. What is Fault Masking?**

A : Creating a test case which does not reveal a fault

B : Error condition hiding another error condition

C : Masking a fault by developer

D : Masking a fault by a tester

**Q.no 59. Which among these are the rules to be considered to form Class diagrams?**

A : Class symbols must have at least a name compartment

B : Compartment can be in random order

C : Attributes and operations can be listed at any suitable place

D : Classes are shown by circle

**Q.no 60. Components can be represented by which of the following?**

A : Component symbols, Stereotypes

B : Rectangular boxes

C : Box

D : Circle

**Q.no 1. What is testing process' first goal?**

A : Bug prevention

B : Testing

C : Execution

D : Analyses

**Q.no 2. Requirement specification is carried out**

A : after requirements are determined

B : before requirements are determined

C : simultaneously with requirements determination

D : independent of requirements determination

**Q.no 3. A collection of operations that specify the services rendered by a class or component known as**

A : Class

B : Interaction

~~C : Interface~~

D : Collaboration

**Q.no 4. An operation can be described as\_\_\_\_\_.**

A : Object

B : Class

C : Functions

~~D : Object & Class~~

**Q.no 5. In which of the following mechanisms, types of all variables and expressions are fixed at compilation time.**

A : Strong Typing

B : Weak Typing

~~C : Static Binding/ early binding~~

D : Dynamic Binding/ late binding

**Q.no 6. The fact that the same operation may apply to two or more classes is called what?**

A : Inheritance

~~B : Polymorphism~~

C : Encapsulation

D : Multiple classification

**Q.no 7. The object-oriented development life cycle is which of the following?**

~~A : Analysis, design, and implementation steps in the given order and using multiple iterations.~~

B : Analysis, design, and implementation steps in the given order and going through the steps no more than one time.

C : Analysis, design, and implementation steps in any order and using multiple iterations.

D : Analysis, design, and implementation steps in any order and going through the steps no more than one time.

**Q.no 8. Which of these is true with respect to interfaces?**

A : Interfaces in component diagram defines relationship between components and environment

B : Interfaces realized by a class or a component are required interfaces

C : Interface on which a class or component depends are called provided interfaces

D : All of the mentioned

**Q.no 9. Executable non atomic computations are called as**

A : action states

B : activity states

C : transitions

D : simple states

**Q.no 10. What is that concept in type theory in which a single name may denote objects of many different classes that are related by some common super class referred to**

A : Monomorphism

B : Type Checking

C : Polymorphism

D : Generalization

**Q.no 11. Which of these comes under development attribute?**

A : Maintainability

B : Reusability

C : Performance

D : Maintainability & Reusability

**Q.no 12. What does the SOAP specification define?**

~~A : A format for XML messaging~~

B : An interface to a business process

C : An Internet communications protocol

D : The payload contents for a Web service message

**Q.no 13. Which of the below is not a valid design pattern?**

A : Singleton

B : Factory

C : Command

~~D : Java~~

**Q.no 14. Which of the following diagrams is used to model business workflows?**

A : Deployment diagram

~~B : Activity diagram~~

C : Use Case diagram

D : Interaction diagram

**Q.no 15. Which Test Document describes the Exit Criteria of Testing?**

A : Test Case

~~B : Test Plan~~

C : Test Summary Report

D : Defect Report

**Q.no 16. The essential characteristics of an object that distinguish it from all other kinds of objects and thus provide crisply defined conceptual boundaries, relative to the perspective of the viewer is called**

A : Encapsulation

B : Modularity

C : Hierarchy

~~D : Abstraction~~



**Q.no 17. If a component of the overall system is functionally complete and operates within that system independently from the functionality of the SOA architectural concept? other components, it is an example of which**

☒ A : Modularity

☐ B : Extensibility

☐ C : Loose coupling

☐ D : Separation of concerns

**Q.no 18. Which of the following is used to model the life time of an object?**

☐ A : Use Case

☐ B : Class

☒ C : State Machine

☐ D : nterface

**Q.no 19. Which diagram shows the configuration of run-time processing elements?**

☒ A : Deployment diagram

☐ B : Component diagram

☐ C : Node diagram

☐ D : ER-diagram

**Q.no 20. Which UML diagrams has a static view.**

☐ A : Collaboration

☒ B : Use case

☐ C : State chart

☐ D : Activity

**Q.no 21. Which is a black box testing technique appropriate to all levels of testing?**

☐ A : Acceptance testing

☐ B : Regression testing

~~C : Equivalence partitioning~~

D : Quality assurance

**Q.no 22. How do Web 2.0 applications communicate with SOA services?**

A : Both architectures use XML to ensure interoperability.

B : Web 2.0 technologies communicate using Remote Procedure Calls (RPC) to SOA services.

C : JavaScript Object Notation (JSON) provides an efficient data format for SOA services.

~~D : Asynchronous JavaScript + XML (Ajax) applications can make service requests from a Web browser.~~

**Q.no 23. What is normally considered as an adjunct to the coding step**

A : Integration testing

~~B : Unit testing~~

C : Completion of Testing

D : Regression Testing

**Q.no 24. Maintenance testing is performed using which methodology?**

A : Retesting

B : Sanity testing

~~C : Breadth test and depth test~~

D : Confirmation testing

**Q.no 25. Single inheritance, Multiple inheritance, and Aggregation comes under which inheritance?**

A : Modularity

B : Typing

~~C : Hierarchy~~

D : None of the mentioned

**Q.no 26. The scenario of a use case is graphically represented using**

A : deployment diagram

~~B : sequence diagram~~

C : use case diagram

D : interaction diagram

**Q.no 27. What is UML?**

~~A : UML is Unified Modeling Language.~~

B : Graphical language for visualizing artifacts of the system.

C : Allow to create a blue print of all the aspects of the system.

D : None of the mentioned

**Q.no 28. State that is active after the completion of the transition is called**

A : source state

~~B : target state~~

C : history state

D : final state

**Q.no 29. In OOD, the attributes(data variables) and methods( operation on the data) are bundled together is called \_\_\_\_\_ .**

A : Classes

B : Objects

~~C : Encapsulation~~

D : Inheritance

**Q.no 30. 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

**Q.no 31. UML provides which of these levels of visibility that can be applied to attributes and operations?**

A : Public

B : Package

C : Protected and Private

~~D : All of the mentioned~~

**Q.no 32. Which view in architectural design shows the key abstractions in the system as objects or object classes?**

A : physical

B : development

~~C : logical~~

D : process

**Q.no 33. which diagrams are used to distribute files, libraries, and tables across topology of the hardware**

~~A : deployment~~

B : use case

C : sequence

D : collaboration

**Q.no 34. Absolute time of an event is modeled as**

~~A : timing constraint~~

B : timing mark

C : timing expression

D : timing semantics

**Q.no 35. Forward Engineering is possible for an Activity Diagram especially if the context of the diagram is**

~~A : an operation~~

B : a workflow

C : a class

D : a use case

**Q.no 36. The relationship between two states is called**

A : transition

B : state

C : association

D : generalization

**Q.no 37. A state machine whose actions are all attached to states is called**

A : Activity diagram

B : Mealy machine

C : Moore machine

D : Component diagram

**Q.no 38. Which of the following is not one of the use of component diagram?**

A : To model physical databases

B : To model executable releases

C : To model general view

D : To model adaptable systems

**Q.no 39. 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

**Q.no 40. It allows us to infer that different members of classes have some common characteristics.**

A : Realization

B : Aggregation

~~C : Generalization~~

D : dependency

**Q.no 41. Software mistakes during coding are known as**

A : errors

B : failures

~~C : bugs~~

D : defects

**Q.no 42. Time event is modeled by the keyword**

A : when

~~B : after~~

C : signal

D : change

**Q.no 43. The principle of serial equivalence for distributed transactions says that**

~~A : When several transactions are executed concurrently, the result should be the same as if they had been executed in sequence~~

B : Concurrent transactions should always be executed in sequence

C : Sequential transactions should never be executed concurrently, because of the dangers of lost updates

D : Concurrent transactions should be atomic

**Q.no 44. Acceptance testing is also known as**

A : Grey box testing

B : White box testing

C : Alpha Testing

~~D : Beta testing~~

**Q.no 45. Executable atomic computations are called as**

- A : action states
- B : activity states
- C : composite states
- D : concurrent states

**Q.no 46. The UML supports event-based modeling using \_\_\_\_\_ diagrams.**

- A : Deployment
- B : Collaboration
- C : State chart
- D : Package

**Q.no 47. Which of the following view shows that the system is composed of interacting processes at run time?**

- A : physical
- B : development
- C : logical
- D : process

**Q.no 48. Which of these are necessary requirements for Iteration mechanism?**

- A : Initialize
- B : Completion Test
- C : Information Hiding
- D : Access Current

**Q.no 49. Name an evaluation technique to assess the quality of test cases.**

- A : Mutation analysis
- B : Validation
- C : Verification
- D : Performance analysis

**Q.no 50. Actors are connected to use cases only by**

- ☒ A : association relationship
- B : generalization relationship
- C : realization relationship
- D : dependency relationship

**Q.no 51. Which of the following errors should not be tested when error handling is evaluated?**

- ☒ A : Error description is unintelligible
- B : Error noted does not correspond to error encountered
- C : Error condition causes system intervention prior to error handling
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- ☒ A : at most one initial state and one final state
- B : at least one initial state and one final state
- C : at most one initial state more than one final state
- D : more than one initial state and at most one final state

**Q.no 53. Which of the following diagram is used to model the vocabulary of a system?**

- A : Object Diagram
- B : Activity Diagram
- ☒ C : Class diagram
- D : Interaction Diagram

**Q.no 54. Which model describes the static structure of the system using object classes and their relationships?**

- A : Sequence model
- B : Subsystem model



C : Dynamic model

D : Structural model

**Q.no 55. Aggregation represents ?**

A : is\_a relationship

B : part\_of relationship

~~C : composed\_of relationship~~

D : none of above

**Q.no 56. What are the three different types of message arrows?**

A : Synchronous, asynchronous

B : Self, Multiplied, instance generator

~~C : Synchronous, Asynchronous, synchronous with instance creation~~

D : asynchronous with instance creation

**Q.no 57. Activities and action taken on the data are represented by circle or round-edged rectangles is called \_\_\_\_ .**

A : Entities

~~B : Process~~

C : Data storage

D : Data flow

**Q.no 58. Which things in UML are the explanatory parts of UML models?**

A : Structural things

B : Behavioral things

C : Grouping things

~~D : Annotational things~~

**Q.no 59. The object of \_\_\_\_\_ within an OO system is to design tests that have a high likelihood of uncovering plausible bugs.**

~~A : Fault-based testing~~

B : Integration testing

C : Use-based testing

D : Scenario-based testing

**Q.no 60. Aggregation is which of the following?**

☒ A : Expresses a part-of relationship and is a stronger form of an association relationship.

B : Expresses a part-of relationship and is a weaker form of an association relationship.

C : Expresses an is-a relationship and is a stronger form of an association relationship.

D : Expresses an is-a relationship and is a weaker form of an association relationship.

**Q.no 1. Which Design Pattern should you use when.... a class wants its subclasses to specify the objects it creates.**

A : Bridge

B : Strategy

C : Builder

☒ D : Factory Method

**Q.no 2. You want to avoid multiple inheritance. Which design pattern would you choose?**

A : Abstraction-Occurrence Pattern

☒ B : Player-Role Pattern

C : General Hierarchy Pattern

D : Singleton Pattern

**Q.no 3. Which of the following is not real-time architectural patterns that are commonly used?**

☒ A : Asynchronous communication

B : Observe and React

C : Environmental Control

D : Process Pipeline

**Q.no 4. \_\_\_\_\_ defines the properties of a data object and take on one of the three different characteristics**

A : data object

~~B : attributes~~

C : relationships

D : data object and attributes

**Q.no 5. Exhaustive testing is**

A : always possible

B : practically possible

~~C : impractical but possible~~

D : impractical and impossible

**Q.no 6. Which of the following are of non-local form ?**

A : Private

B : Protected and Packaged

C : Public

~~D : Public, Protected and Packaged~~

**Q.no 7. Effective testing will reduce \_\_\_\_\_ cost.**

~~A : maintenance~~

~~B : design~~

C : coding

D : documentation

**Q.no 8. The method of design encompassing the process of object oriented decomposition and a notation for depicting both logical and physical and as well as static and dynamic models of the system under design is known as:**

A : Object- Oriented Programming

~~B : Object- Oriented Design~~

~~C : Object- Oriented Analysis~~

D : Object- Oriented Parameter

**Q.no 9. Which one of the following is not a structural thing?**

A : Class

~~B : Package~~

C : Use case

D : Node

**Q.no 10. Which Design Pattern should you use when.... you want to access an aggregate object's contents without exposing its internal representation.**

~~A : Iterator~~

B : Composite

C : Poxy

D : Bridge

**Q.no 11. Inside the states, the events are encountered to handle without leaving the state. This is known as**

A : state machine

B : state transition

~~C : internal transition~~

D : external transition

**Q.no 12. SDLC stands for**

~~A : System Development Life Cycle~~

B : Structure Design Life Cycle

C : System Design Life Cycle

D : Structure development Life Cycle

**Q.no 13. Which of the following is not a UML diagram?**

A : Class diagram

B : Object Diagram

C : Interface diagram

D : Use case model

**Q.no 14. Which of the following evaluates to an absolute value of Time?**

A : Timing mark

B : Timing Constraint

C : Timing Expression

D : Timing Location

**Q.no 15. Which design pattern represents a way to access all the objects in a collection?**

A : Iterator pattern

B : Facade pattern

C : Builder pattern

D : Bridge pattern

**Q.no 16. Exceptions are**

A : internal signal

B : state

C : association

D : generalization

**Q.no 17. Which of the following is not a part of bug report?**

A : Test case

B : Output

C : Software Version

D : LOC

**Q.no 18. Which of the following pattern is the basis of interaction management in many web-based systems?**

A : architecture

B : repository pattern

~~C : model-view-controller~~

D : different operating system

**Q.no 19. Which of the following is not a likely configuration of a Client-Server System?**

A : Single Client- Single Server

~~B : Single Client- Multiple Server System~~

C : Multiple Clients- Multiple Servers System

D : Multiple Clients- Single Server System

**Q.no 20. What are the characteristics does a good SAD consist of?**

A : Consistency, Feasibility, Adequacy

B : Completeness, Well-formedness

C : Reliability, Usability

~~D : Consistency, Feasibility, Adequacy, Completeness, Well-formedness~~

**Q.no 21. Which of the following pattern works as a bridge between two incompatible interfaces?**

A : Builder Pattern

~~B : Adapter Pattern~~

C : Prototype Pattern

D : Filter Pattern

**Q.no 22. The recurring aspects of designs are called design**

~~A : patterns~~

B : documents

C : structures

D : methods

**Q.no 23. Which diagram in UML shows a complete of a modeled system at a specific time.**

A : Sequence

B : Collaboration

C : Class

~~D : Object~~

**Q.no 24. The \_\_\_\_\_ enables the software engineer to develop models of the information domain and functional domain at the same time**

~~A : data flow diagram~~

B : state transition diagram

C : control specification

D : activity diagram

**Q.no 25. Which of the following pattern creates object without exposing the creation logic to the client and refer to newly created object using a common interface?**

~~A : Factory Pattern~~

B : Abstract Factory Pattern

C : Singleton Pattern

D : Transfer Object Pattern

**Q.no 26. A \_\_\_\_\_ is a condition during the life of an object during which it satisfies performs some activity or waits for some event.**

A : class

~~B : state~~

C : actor

D : component

**Q.no 27. Test cases are designed during which of the following stages?**

A : Test recording

B : Test configuration

C : Test planning

~~D : Test specification~~

**Q.no 28. Which structure's view shows the mapping of software onto hardware?**

A : Module Structure

B : Process Structure

~~C : Physical Structure~~

D : Class Structure

**Q.no 29. \_\_\_\_\_ are the Testers of System Testing?**

A : Developers

B : Business Analysts

~~C : Independent Testers~~

D : Customers

**Q.no 30. Constraints can be represented in UML by**

~~A : {text}~~

B : [text]

C : (text)

D : Constraint

**Q.no 31. Which type they considered Activity diagram, use case diagram, collaboration diagram, and sequence diagram?**

A : non-behavioral

B : non-structural

C : structural

~~D : behavioral~~

**Q.no 32. Which of the following is incorrect in deployment diagram?**

A : Communication connections between nodes are shown by communication paths

~~B : Communication paths are represented by dotted lines~~

C : Artifacts are deployed inside nodes where they reside and execute



D : None of the mentioned

**Q.no 33. Which design pattern defines one-to-many dependency among objects?**

A : Singleton pattern

B : Facade Pattern

~~C : Observer pattern~~

D : Factory method pattern

**Q.no 34. What is “V” Model?**

A : Test Level

~~B : SDLC Model~~

C : Test Type

D : Test Design Technique

**Q.no 35. Which of the following term is best defined by the statement:”a structural relationship that specifies that objects of one thing are connected to objects of another”?**

~~A : Association~~

B : Aggregation

C : Realization

D : Generalization

**Q.no 36. In an Activity Diagram, organizing the activities into groups is called**

A : forking

B : joining

~~C : swimlane~~

D : synchronization

**Q.no 37. Which of these are included in the product overview for SAD?**

A : product vision, assumptions, constraints

B : product scope

C : target markets, business requirements

~~D : product vision, assumptions, constraints, target markets & business requirements~~

**Q.no 38. Which of the following diagram is used to model the distribution of objects?**

~~A : Object Diagram~~

B : Activity Diagram

C : State Chart Diagram

D : Interaction Diagram

**Q.no 39. Which of the following is incorrect in the deployment diagram?**

A : Communication connections between nodes are shown by communication paths

~~B : Communication paths are represented by dotted lines~~

C : Artifacts are deployed inside nodes where they reside and execute

D : Nodes are not useful

**Q.no 40. Which among these are the common notations for deployment diagrams?**

~~A : Artifacts and nodes~~

B : Stereotypes

C : Components

D : Usecase

**Q.no 41. A state that has substates, that is nested states, is called**

~~A : composite state~~

B : history state

C : target state

D : source state

**Q.no 42. What is the programming style of the object oriented conceptual model?**

A : Invariant relationships

B : Algorithms

C : Classes and objects

D : Goals, often expressed in a predicate calculus.

**Q.no 43. Which of the following describes the Adapter pattern correctly?**

A : This pattern builds a complex object using simple objects and using a step by step approach.

B : This pattern refers to creating duplicate object while keeping performance in mind.

C : This pattern works as a bridge between two incompatible interfaces.

D : This pattern is used when we need to decouple an abstraction from its implementation so that the two can vary independently.

**Q.no 44. Which of the following is wrong with respect to a thread?**

A : Threads are light weight

B : Threads are modeled using stereotyped active classes

C : Threads are nested inside another thread

D : Threads can initiate a control activity

**Q.no 45. What does a component diagram consists of?**

A : Components, their Relationship to the environment

B : Packages and dependency

C : Internal structure

D : Internal structure, Components & their Relationship to the environment

**Q.no 46. Realization of a use case is specified by**

A : a collaboration

B : a component

C : a node

D : an activity

**Q.no 47. What is Cyclomatic complexity?**

A : Black box testing

~~B : White box testing~~

C : Yellow box testing

D : Green box testing

**Q.no 48. Diagrams in unified modified language which are used to test class diagrams for accuracy purpose are called**

~~A : deployment diagrams~~

B : component diagrams

C : object diagrams

D : package diagrams

**Q.no 49. Change event is modeled by the keyword**

A : after

~~B : when~~

C : time

D : signal

**Q.no 50. Which of the following are concerned with communication between objects?**

A : J2EE Design Patterns

~~B : Behavioral Design Patterns~~

C : Creational Design Pattern

D : Structural Design Patterns

**Q.no 51. A link is an instance of What things**

A : Generalization

~~B : Association~~

C : Dependency

D : Realization

**Q.no 52. Which of the following describes the Creational pattern correctly?**

~~A : This type of patterns provide a way to create objects while hiding the creation logic, rather~~

B : This type of patterns concern class and object composition. Concept of inheritance is used to than instantiating objects directly using new opreator

C : This type of pattern are specifically concerned with communication between objects.

D : This type of pattern are specifically concerned with the presentation tier

**Q.no 53. A package diagram consists of the following?**

~~A : Groupings of Usecases, classes, components~~

B : Interface

C : Object & Class

D : Sticks

**Q.no 54. Which among these are the rules to be considered to form Class diagrams?**

~~A : Class symbols must have at least a name compartment~~

B : Compartment can be in random order

C : Attributes and operations can be listed at any suitable place

D : Classes are shown by circle

**Q.no 55. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

~~C : Statechart diagram~~

D : Object diagram

**Q.no 56. Which of the following is present in a nested concurrent state machine?**

A : Initial State

B : Final State

C : History State

~~D : Concurrent sub state~~

**Q.no 57. In component diagrams, building block which is represented with two rectangles laid on left side is classified as**

A : type of components

B : interfaces

~~C : dependency relationships~~

D : association

**Q.no 58. What is Fault Masking?**

A : Creating a test case which does not reveal a fault

~~B : Error condition hiding another error condition~~

C : Masking a fault by developer

D : Masking a fault by a tester

**Q.no 59. \_\_\_\_\_ relationship between use cases means that the base use case explicitly incorporates the behavior of another use case at a location specified in the base.**

A : Exclude

B : Extend

~~C : Include~~

D : Abstract

**Q.no 60. .... can be defined as most recent and perhaps the most comprehensive technique for solving computer problems.**

~~A : System Analysis~~

B : System Data

C : System Procedure

D : System Record

**Q.no 1. The essential characteristics of an object that distinguish it from all other kinds of objects and thus provide crisply defined conceptual boundaries, relative to the perspective of the viewer is called**

A : Encapsulation

B : Modularity

C : Hierarchy

~~D : Abstraction~~

**Q.no 2. Which things are dynamic parts of UML models?**

A : Structural things

~~B : Behavioral things~~

C : Grouping things

D : Annotational things

**Q.no 3. Which testing is an integration testing approach that is commonly used when “shrink- wrapped” software products are being developed?**

A : Regression Testing

B : Integration testing

~~C : Smoke testing~~

D : Validation testing

**Q.no 4. An operation can be described as\_\_\_\_\_.**

A : Object

B : Class

C : Functions

~~D : Object & Class~~

**Q.no 5. Which Test Document describes the Exit Criteria of Testing?**

A : Test Case

~~B : Test Plan~~

C : Test Summary Report

D : Defect Report

**Q.no 6. If a component of the overall system is functionally complete and operates within that system independently from the functionality of the SOA architectural concept? other components, it is an example of which**

☒ A : Modularity

B : Extensibility

C : Loose coupling

D : Separation of concerns

**Q.no 7. Which type of design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator?**

☒ A : Creational Design Patterns

B : Structural Design Patterns

C : Behavioral Design Pattern

D : J2EE Design Patterns

**Q.no 8. Requirement specification is carried out**

☒ A : after requirements are determined

B : before requirements are determined

C : simultaneously with requirements determination

D : independent of requirements determination

**Q.no 9. Which of the following diagrams is used to model business workflows?**

☒ A : Deployment diagram

B : Activity diagram

C : Use Case diagram

D : Interaction diagram

**Q.no 10. Which of the following statement is true concerning objects and/or classes?**

☒ A : An object is an instance of a class.

B : A class is an instance of an object.



C : An object includes encapsulates only data.

D : A class includes encapsulates only data.

**Q.no 11. The scenario of a use case is graphically represented using**

A : deployment diagram

~~B : sequence diagram~~

C : use case diagram

D : interaction diagram

**Q.no 12. Which of the below is not a valid design pattern?**

A : Singleton

B : Factory

C : Command

~~D : Java~~

**Q.no 13. State that is active after the completion of the transition is called**

A : source state

~~B : target state~~

C : history state

D : final state

**Q.no 14. Which of these is true with respect to interfaces?**

~~A : Interfaces in component diagram defines relationship between components and environment~~

B : Interfaces realized by a class or a component are required interfaces

C : Interface on which a class or component depends are called provided interfaces

D : All of the mentioned

**Q.no 15. What can be requested from any object of the class to affect behavior?**

A : object

B : attribute

~~C : operation~~

D : instance

**Q.no 16. Which is a black box testing technique appropriate to all levels of testing?**

A : Acceptance testing

B : Regression testing

~~C : Equivalence partitioning~~

D : Quality assurance

**Q.no 17. Which diagram shows the configuration of run-time processing elements?**

~~A : Deployment diagram~~

B : Component diagram

C : Node diagram

D : ER-diagram

**Q.no 18. The fact that the same operation may apply to two or more classes is called what?**

A : Inheritance

~~B : Polymorphism~~

C : Encapsulation

D : Multiple classification

**Q.no 19. A collection of operations that specify the services rendered by a class or component known as**

A : Class

B : Interaction

~~C : Interface~~

D : Collaboration

**Q.no 20. Which design pattern ensures that only one object of particular class gets created?**

~~A : Singleton pattern~~

B : Filter pattern

C : State pattern

D : Bridge pattern

**Q.no 21. In OOD, the attributes(data variables) and methods( operation on the data) are bundled together is called \_\_\_\_\_ .**

A : Classes

B : Objects

~~C : Encapsulation~~

D : Inheritance

**Q.no 22. A class is divided into which of these compartments ?**

A : Name Compartment

B : Attribute Compartment

C : Operation Compartment

~~D : All of the mentioned~~

**Q.no 23. What is normally considered as an adjunct to the coding step**

A : Integration testing

~~B : Unit testing~~

C : Completion of Testing

D : Regression Testing

**Q.no 24. Which of the following is used to model the life time of an object?**

A : Use Case

B : Class

~~C : State Machine~~

D : nterface

**Q.no 25. In which of the following mechanisms, types of all variables and expressions are fixed at compilation time.**

A : Strong Typing

B : Weak Typing

C : Static Binding/ early binding

D : Dynamic Binding/ late binding

**Q.no 26. 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

**Q.no 27. What is UML?**

A : UML is Unified Modeling Language.

B : Graphical language for visualizing artifacts of the system.

C : Allow to create a blue print of all the aspects of the system.

D : None of the mentioned

**Q.no 28. Which structure's view is orthogonal to the module and conceptual view?**

A : Module Structure

B : Process Structure

C : Uses Structure

D : Data flow

**Q.no 29. Single inheritance, Multiple inheritance, and Aggregation comes under which inheritance?**

A : Modularity

B : Typing

C : Hierarchy

D : None of the mentioned

**Q.no 30. What does the SOAP specification define?**

A : A format for XML messaging

B : An interface to a business process

C : An Internet communications protocol

D : The payload contents for a Web service message

**Q.no 31. What is a collection of model elements called?**

A : Box

B : Dependency

C : UML packages

D : Package members

**Q.no 32. 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

**Q.no 33. For showing detailed design of procedures, which one of the following OOAD artifacts is the MOST useful?**

A : Interaction Diagrams

B : Activity Diagrams

C : Package Diagrams

D : State Diagrams

**Q.no 34. A \_\_\_\_\_ is a behavior that specifies the sequence of states an object goes through during its lifetime in response to events.**

A : class

B : state machine

C : use case

D : activity

**Q.no 35. Which SOA architectural concept is applied as an organization combines services to perform a business process?**

A : Modularity

~~B : Composition~~

C : Encapsulation

D : Separation of concerns

**Q.no 36. Which of the following is not one of the use of component diagram?**

A : To model physical databases

B : To model executable releases

C : To model general view

~~D : To model adaptable systems~~

**Q.no 37. Which structure describes units as abstraction of system's functional requirements?**

~~A : Conceptual structure~~

B : Module structure

C : Physical structure

D : Calls structure

**Q.no 38. Which of the following is the way of ensuring that the tests are actually testing code?**

A : Control structure testing

B : Complex path testing

~~C : Code coverage~~

D : Quality assurance of software

**Q.no 39. 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

**Q.no 40. \_\_\_\_\_ captures the intended behavior of a system.**

~~A : Use Case~~

B : Component

C : Class

D : Interface

**Q.no 41. A state machine whose actions are all attached to states is called**

A : Activity diagram

B : Mealy machine

~~C : Moore machine~~

D : Component diagram

**Q.no 42. Which among these are the rules to be considered to form Class diagrams?**

~~A : Class symbols must have at least a name compartment~~

B : Compartment can be in random order

C : Attributes and operations can be listed at any suitable place

D : Operations

**Q.no 43. You want to minimize development cost by reusing methods? Which design pattern would you choose?**

A : Adapter Pattern

B : Singleton Pattern

~~C : Delegation pattern~~

D : Immutable Pattern

**Q.no 44. Which class that can have only one instance?**

A : Adaptor Class

B : Proxy Class

~~C : Singleton Class~~

D : Factory class

**Q.no 45. Acceptance testing is also known as**

A : Grey box testing

B : White box testing

C : Alpha Testing

~~D : Beta testing~~

**Q.no 46. A typical \_\_\_\_\_ program creates some remote objects, makes references to these objects accessible, and waits for clients to invoke methods on these objects.**

~~A : Server~~

B : Client

C : Thread

D : Concurrent

**Q.no 47. which diagram is used to show interactions between messages are classified as?**

A : activity

B : state chart

~~C : collaboration~~

~~D : object lifeline~~

**Q.no 48. What is a key difference between a component and a service?**

A : A service is deployed once and a component is deployed many times.

B : A component is deployed once and a service is deployed many times.



C : A component has an interface and a service implements the interface.

~~D : A service has an interface and a component implements the interface.~~

**Q.no 49. Time event is modeled by the keyword**

A : when

~~B : after~~

C : signal

D : change

**Q.no 50. Which of these are necessary requirements for Iteration mechanism?**

A : Initialize

B : Completion Test

~~C : Information Hiding~~

D : Access Current

**Q.no 51. 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

**Q.no 52. Which of the following diagram is used to model the vocabulary of a system?**

A : Object Diagram

B : Activity Diagram

~~C : Class diagram~~

~~D : Interaction Diagram~~

**Q.no 53. Which model in system modelling depicts the static nature of the system ?**

A : Behavioral Model

B : Context Model

C : Data Model

~~D : Structural Model~~

**Q.no 54. Which model describes the static structure of the system using object classes and their relationships?**

A : Sequence model

B : Subsystem model

C : Dynamic model

~~D : Structural model~~

**Q.no 55. Which things in UML are the explanatory parts of UML models?**

A : Structural things

B : Behavioral things

C : Grouping things

~~D : Annotational things~~

**Q.no 56. Composition is a stronger form of which of the following?**

~~A : Aggregation~~

B : Encapsulation

C : Inheritance

D : All of the above.

**Q.no 57. A sequential state machine may have**

~~A : at most one initial state and one final state~~

B : at least one initial state and one final state

C : at most one initial state more than one final state

D : more than one initial state and at most one final state

**Q.no 58. The behavior of a use case is specified by**

~~A : flow of events~~

B : classes

C : components

D : nodes

**Q.no 59. Which among the following are not the valid notations for package and component diagram?**

A : Notes

~~B : Box~~

C : Extension Mechanisms

D : Packages

**Q.no 60. Activities and action taken on the data are represented by circle or round-edged rectangles is called \_\_\_\_ .**

A : Entities

~~B : Process~~

C : Data storage

D : Data flow

**Q.no 1. Which of the following is not real-time architectural patterns that are commonly used?**

~~A : Asynchronous communication~~

B : Observe and React

C : Environmental Control

D : Process Pipeline

**Q.no 2. Which structure's view shows the mapping of software onto hardware?**

A : Module Structure

B : Process Structure

~~C : Physical Structure~~

D : Class Structure

**Q.no 3. How do Web 2.0 applications communicate with SOA services?**

A : Both architectures use XML to ensure interoperability.

B : Web 2.0 technologies communicate using Remote Procedure Calls (RPC) to SOA services.

C : JavaScript Object Notation (JSON) provides an efficient data format for SOA services.

~~D : Asynchronous JavaScript + XML (Ajax) applications can make service requests from a Web browser.~~

**Q.no 4. \_\_\_\_\_ defines the properties of a data object and take on one of the three different characteristics**

A : data object

~~B : attributes~~

C : relationships

D : data object and attributes

**Q.no 5. SDLC stands for**

~~A : System Development Life Cycle~~

B : Structure Design Life Cycle

C : System Design Life Cycle

D : Structure development Life Cycle

**Q.no 6. Exceptions are**

~~A : internal signal~~

B : state

C : association

D : generalization

**Q.no 7. Exhaustive testing is**

A : always possible

B : practically possible

~~C : impractical but possible~~

D : impractical and impossible

**Q.no 8. Which of the following is not a part of bug report?**

A : Test case

B : Output

C : Software Version

~~D : LOC~~

**Q.no 9. What is testing process' first goal?**

~~A : Bug prevention~~

B : Testing

C : Execution

D : Analyses

**Q.no 10. Maintenance testing is performed using which methodology?**

A : Retesting

B : Sanity testing

~~C : Breadth test and depth test~~

D : Confirmation testing

**Q.no 11. Which Design Pattern should you use when.... a class wants its subclasses to specify the objects it creates.**

A : Bridge

B : Strategy

C : Builder

~~D : Factory Method~~

**Q.no 12. The recurring aspects of designs are called design**

~~A : patterns~~

B : documents

C : structures

D : methods

**Q.no 13. Class diagrams are not useful to .**

A : model simple collaborations

B : model the vocabulary of a system

~~C : model simple interactions~~

D : model a logical database schema

**Q.no 14. Effective testing will reduce \_\_\_\_\_ cost.**

~~A : maintenance~~

B : design

C : coding

D : documentation

**Q.no 15. The object-oriented development life cycle is which of the following?**

~~A : Analysis, design, and implementation steps in the given order and using multiple iterations.~~

B : Analysis, design, and implementation steps in the given order and going through the steps no more than one time.

C : Analysis, design, and implementation steps in any order and using multiple iterations.

D : Analysis, design, and implementation steps in any order and going through the steps no more than one time.

**Q.no 16. Constraints can be represented in UML by**

~~A : {text}~~

B : [text]

C : (text)

D : Constraint

**Q.no 17. Which diagram in UML shows a complete of a modeled system at a specific time.**

A : Sequence

B : Collaboration

C : Class

~~D : Object~~

**Q.no 18. What is that concept in type theory in which a single name may denote objects of many different classes that are related by some common super class referred to**

A : Monomorphism

B : Type Checking

~~C : Polymorphism~~

D : Generalization

**Q.no 19. Which design pattern suggests multiple classes through which request is passed and multiple but only relevant classes carry out operations on the request?**

A : Singleton pattern

~~B : Chain of responsibility pattern~~

C : State pattern

D : Bridge pattern

**Q.no 20. Which one of the following is not a structural thing?**

A : Class

~~B : Package~~

C : Use case

D : Node

**Q.no 21. Test cases are designed during which of the following stages?**

A : Test recording

B : Test configuration

C : Test planning

~~D : Test specification~~

**Q.no 22. Which diagram evolved from a desire to develop a procedural design representation that would not allow violation of the structured constructs?**

A : State transition diagram

~~B : Box diagram~~

C : ER diagram

D : Use case diagram

**Q.no 23. Executable non atomic computations are called as**

A : action states

~~B : activity states~~

C : transitions

D : simple states

**Q.no 24. You want to avoid multiple inheritance. Which design pattern would you choose?**

A : Abstraction-Occurrence Pattern

~~B : Player-Role Pattern~~

C : General Hierarchy Pattern

D : Singleton Pattern

**Q.no 25. A \_\_\_\_\_ is a condition during the life of an object during which it satisfies performs some activity or waits for some event.**

A : class

~~B : state~~

C : actor

D : component

**Q.no 26. Which of the following evaluates to an absolute value of Time?**

A : Timing mark

B : Timing Constraint

~~C : Timing Expression~~



D : Timing Location

**Q.no 27. Which of the following pattern creates object without exposing the creation logic to the client and refer to newly created object using a common interface?**

A : Factory Pattern

B : Abstract Factory Pattern

C : Singleton Pattern

D : Transfer Object Pattern

**Q.no 28. Inside the states, the events are encountered to handle without leaving the state. This is known as**

A : state machine

B : state transition

C : internal transition

D : external transition

**Q.no 29. Which of the following is not regression test case?**

A : A representative sample of tests that will exercise all software functions

B : Additional tests that focus on software functions that are likely to be affected by the change

C : Tests that focus on the software components that have been changed

D : Low-level components are combined into clusters that perform a specific software sub-function

**Q.no 30. Which of the following pattern is the basis of interaction management in many web-based systems?**

A : architecture

B : repository pattern

C : model-view-controller

D : different operating system

**Q.no 31. In an Activity Diagram, organizing the activities into groups is called**

A : forking

B : joining

☒ C : swimlane

D : synchronization

**Q.no 32. What is Cyclomatic complexity?**

A : Black box testing

☒ B : White box testing

C : Yellow box testing

D : Green box testing

**Q.no 33. What is the programming style of the object oriented conceptual model?**

A : Invariant relationships

B : Algorithms

☒ C : Classes and objects

D : Goals, often expressed in a predicate calculus.

**Q.no 34. An entity in ER Model is a real world being, which has some properties called\_\_\_\_\_ .**

☒ A : Attributes

B : Relationship

C : Domain

D : path

**Q.no 35. Software mistakes during coding are known as**

A : errors

B : failures

☒ C : bugs

D : defects

**Q.no 36. In Unified Modeling Language, diagrams that organize system elements into groups are classified as**

- A : package diagrams
- B : organized diagram
- C : system diagrams
- D : class diagrams

**Q.no 37. Which three characteristics of services indicate a mature SOA environment?**

- A : Services are discoverable
- B : Services use Web 2.0 technology
- C : Services are exposed by an Enterprise Service Bus (ESB)
- D : Services are composed into broader business functionality

**Q.no 38. Client-server architecture holds the client responsible for \_\_\_\_ and server is only responsible for \_\_\_\_.**

- A : Application Logic; Presentation Logic
- B : Presentation Logic; Data Access Logic and Data Storage
- C : Data Access Logic and Presentation Logic; Data Storage
- D : Application Logic; Data Storage

**Q.no 39. Which of these are types of nodes used in the deployment diagram?**

- A : Device
- B : Execution Environment
- C : Artifact
- D : Device & Execution Environment

**Q.no 40. Absolute time of an event is modeled as**

- A : timing constraint
- B : timing mark
- C : timing expression

D : timing semantics

**Q.no 41. Which of the following is not included in Architectural design decisions?**

A : type of application

B : distribution of the system

C : architectural styles

~~D : testing the system~~

**Q.no 42. Why is messaging important to an SOA?**

A : Messaging improves the performance of complex environments.

B : Messaging implements separation of concerns resulting in faster development.

~~C : Messaging facilitates communication between distributed heterogeneous environments.~~

D : Messaging is used to communicate between a repository and an Enterprise Service Bus

**Q.no 43. Which is not a type of incremental testing approach?**

A : Bottom up

B : Top down

~~C : Big-bang~~

D : Functional incrimination

**Q.no 44. Which of the following is incorrect in deployment diagram?**

A : Communication connections between nodes are shown by communication paths

~~B : Communication paths are represented by dotted lines~~

C : Artifacts are deployed inside nodes where they reside and execute

D : None of the mentioned

**Q.no 45. Which of the following are concerned with communication between objects?**

A : J2EE Design Patterns

~~B : Behavioral Design Patterns~~

C : Creational Design Pattern

D : Structural Design Patterns

**Q.no 46. The relationship between two states is called**

~~A : transition~~

B : state

C : association

D : generalization

**Q.no 47. A package diagram consists of the following?**

A : Package symbols

B : Groupings of Use cases, classes, components

C : Interface

~~D : Package symbols, Groupings of Use cases, classes & components~~

**Q.no 48. It allows us to infer that different members of classes have some common characteristics.**

A : Realization

B : Aggregation

~~C : Generalization~~

D : dependency

**Q.no 49. Change event is modeled by the keyword**

A : after

~~B : when~~

C : time

D : signal

**Q.no 50. Which type they considered Activity diagram, use case diagram, collaboration diagram, and sequence diagram?**

A : non-behavioral

B : non-structural

C : structural

☒ D : behavioral

**Q.no 51. If you are working on real-time process control applications or systems that involve concurrent processing, you would use a**

A : Activity diagram

B : Sequence diagram

☒ C : Statechart diagram

D : Object diagram

**Q.no 52. Which of the following is present in a nested concurrent state machine?**

A : Initial State

B : Final State

C : History State

☒ D : Concurrent sub state

**Q.no 53. Which of the following describes the Creational pattern correctly?**

☒ A : This type of patterns provide a way to create objects while hiding the creation logic, rather

B : This type of patterns concern class and object composition. Concept of inheritance is used to than instantiating objects directly using new opreator

C : This type of pattern are specifically concerned with communication between objects.

D : This type of pattern are specifically concerned with the presentation tier

**Q.no 54. What is Fault Masking?**

A : Creating a test case which does not reveal a fault

☒ B : Error condition hiding another error condition

C : Masking a fault by developer

D : Masking a fault by a tester

**Q.no 55. In component diagrams, building block which is represented with two rectangles laid on left side is classified as**

- A : type of components
- B : interfaces
- ☒ C : dependency relationships
- D : association

**Q.no 56. Components can be represented by which of the following?**

- ☒ A : Component symbols, Stereotypes
- B : Rectangular boxes
- C : Box
- D : Circle

**Q.no 57. What are the three different types of message arrows?**

- A : Synchronous, asynchronous
- B : Self, Multiplied, instance generator
- ☒ C : Synchronous, Asynchronous, synchronous with instance creation
- D : asynchronous with instance creation

**Q.no 58. The object of \_\_\_\_\_ within an OO system is to design tests that have a high likelihood of uncovering plausible bugs.**

- ☒ A : Fault-based testing
- B : Integration testing
- C : Use-based testing
- D : Scenario-based testing

**Q.no 59. Aggregation is which of the following?**

- ☒ A : Expresses a part-of relationship and is a stronger form of an association relationship.
- B : Expresses a part-of relationship and is a weaker form of an association relationship.
- C : Expresses an is-a relationship and is a stronger form of an association relationship.

D : Expresses an is-a relationship and is a weaker form of an association relationship.

**Q.no 60. A package diagram consists of the following?**

A : Groupings of Usecases, classes, components

B : Interface

C : Object & Class

D : Sticks