Unit 1

1) The reasons behind modeling can be

Readability

Reusability

Both

None

Answer: Both

2) The Unified Modeling Language (UML) is a standard language for

specifying

visualizing

constructing

all

Answer: all

3) The primary goals in the design of the UML were

security

interactivity

both

none

Answer: none

4)Total valid UML diagrams

7

8

9

10

Answer: 9

5) UML Diagram Classification

Static, Dynamic

0-1

small, large

no option

Answer: Static, Dynamic

6) Modeling is a mean for dealing with complexity

TRUE
FALSE
Answer: true

7) Class diagrams represent the structure of the system

TRUE
FALSE
Answer: true

8) A class represent a concept

TRUE
FALSE
Answer: true

9) An activity diagram dont shows flow control within a system

TRUE
FALSE
Answer: False

10) Programmers Approach to Software Engineering

Skip requirements engineering and design phases

start writing code

above two

none

Answer: above two

11) Design is a waste of time

programmers approach

Designer Approach

Engineer's Approach

Manager Approach

Answer: programmers approach

12) We need to show something to the customer real quick

Programer's Approach

Designer Approach

Engineers Approach

Manager's Approach

Answer: Manager's approach

13) Design is a trial-and-error process

TRUE

FALSE

Answer: true

14) Software design as a wicked problem

TRUE

FALSE

Answer: true

16) Every wicked problem is a symptom of another problem

TRUE

FALSE

Answer: true

17) Following is a design principle

class

Abstraction

Polymorphism

Inheritance

Answer: Abstraction

18) Complexity

High value is high complexity

Low value is high complexity

Zero value is high complexity

High value is no complexity

Answer: high value is high complexity

19) Design methods

jsp

jsd

er

all

Answer: All

20) OOD methods

fusion

booch

both

none

Answer: Both

21) JSP is

Jackson Structured Programming

Jackson Structured Project

both

none

Answer: Jackson Structured Programming

22) Which programming language is the foundation of the Jackson Library?

Jackson

J2EE

both

none

Answer: None

23) JSD is

Jackson Structured Data

Jackson Structured Design

both

none

Answer: Jackson Structured Design

24) JSP is for

programming-in-the-small

programming-in-the-large

both

none

Answer: programming-in-the-small

25) JSD is for

programming-in-the-small

programming-in-the-large

both

none

Answer: programming-in-the-large

26) Does Jackson support data binding?

yes

no

Answer: yes

27) JSP basic idea is

bad program reflects structure of its input and output

program reflects structure

good program reflects structure of its input

good program reflects structure of its input and output

Answer: good program reflects structure of its input and output

28) In jsp, program can be derived almost mechanically from a description of the input and output

TRUE

FALSE

Answer: True

29) input and output are depicted in a structure diagram and/or in structured text/schematic logic this is concept of--

jsp

jsd

both

none

Answer: jsp

30) Basic compound forms of jsp is/are

sequence

iteration

selection

all

Answer: all

31) Model input and output in jsp

any diagrams

State diagrams

structure diagrams

class diagrams

Answer: structure diagrams

32) In JSP, Merge diagrams to

create program structure

create object structure

create class structure

all

Answer: create Program Structure

33) IN JSP, Optimize results through

program inversion

Simple optimization

both

none

Answer: program inversion

34) The modeling stage, network stage, implementation stage are stages of

JSP
JSD
both
none
Answer: JSD

35) How many ways does Jackson provide to process JSON?

5

4

3

2

Answer: 3

36) JSD life cycle is depicted as

process structure diagram

program structure diagram

Project structure diagram

Part of structure diagram

Answer: process structure diagram

37) Is there any additional library required by the Jackson library outside the JDK?

Yes

No

Answer: No

38) process structure diagrams are

finite state diagrams

infinite state diagrams

state diagrams

Interstate diagrams

Answer: State Diagram

39) identify the objects, determine their attributes and services, determine the relationships between objects are stages of

JSP

JSD

OOAD

OOD

Answer: OOAD

40) Software Life Cycle Activities, in Requirements Specification

1. System analyst works with users to clarify the detailed system requirements

2. System manager works with users to clarify the detailed system requirements

3. System leader works with users to clarify the detailed system requirements

4. System tester works with users to clarify the detailed system requirements

Answer: System analyst works with users to clarify the detailed system requirements

41) Is Jackson library open-source?

yes

no

Answer: YES

42)Software Life Cycle Activities, in Analysis

Make sure you partially understand the problem before starting the design or program a solution

Make sure you completely understand the problem before starting the design or program a solution

Make sure you completely understand the problem before end the design or program a solution

Make sure you completely understand the problem before starting the analysis or program a solution

Answer: Make sure you completely understand the problem before starting the design or program a solution

43) Software Life Cycle Activities, in Design

Top-down: break system into larger main system

Top-down: combine system into smaller subsystems

Top-down: break system into smaller subsystems

Top-down: combine system into larger system

Answer: Top-down: break system into smaller subsystems

44) How many types of data binding does Jackson support?

5

4

3

2

Answer: 2

Unit 2

1) All architecture is software design, but not all design is software architecture

TRUE

FALSE

Answer: true

2) Architecture focuses on 'issues that will be difficult/impossible to change once the system is built'

TRUE

FALSE

Answer: true

3) Architecture is the fundamental organization

A. of a system, embodied in its components.

B. A and their relationships to each other and the environment

C. B and the principles governing its design and evolution.

D. Nothing like it

Answer: C

4) Data passing mechanisms

Function call

System call

both

none

Answer: Function call

5) Control flow is

Sequential

Concurrent

both

none

Answer: Both

6) Non-functional requirements (NFRs) include

Technical Constraints

Bussiness Constraints

qos

all

Answer: All

7) What does an Architect do

Liaison with stakeholders

Technology knowledge

Risk managements

all

Answer: all

8) What are Quality Attributes

reliability

smartness

both

none

Answer: reliability

9) Throughput is

Performance

Complexity

security

none

Answer: Performance

10) Security is

performance

QoS

Complexity

Part of reliability

Answer: Part of reliability

11) Non-functional requirements are also called as

QOS

Feedback

nob qos

ALL

Answer: QOS

12) Control flow can be

Synchronous

Non-Synchronus

Both

none

Answer: Synchronous

13) Patterns Help efficiently communicate a design

TRUE

FALSE

Answer: true

14) Patterns and Styles are not the same thing

TRUE

FALSE

Answer: False

15) Non-functional requirements (NFRs) do not define 'how' a system works

TRUE

FALSE

Answer: False

16) Architecture provides an abstract view of a design by

Hides complexity of design

direct mapping between architecture elements and software elements

both

none

Answer: Hides complexity of design

17) Hierarchical decomposition is a powerful abstraction mechanism

TRUE

FALSE

Answer: true

18) A software architecture represents a simple design artifact

TRUE

FALSE

Answer: false

19) Process view: describes the concurrency and communications elements of architecture.

2+1 View Model

3+1 View Model

4+1 View Model

5+1 View Model

Answer: 4+1 View Model

20) Logical view: describes architecturally significant elements of the architecture and the relationships between them.

2+1 View Model

3+1 View Model

4+1 View Model

5+1 View Model

Answer: 4+1 View Model

21) The design process for identifying the sub-systems making up a system and the framework for sub-system control and communication is

architectural design

Software design

Data design

Process design

Answer: architectural design

22) The output of this design process is a description of the---

software architecture

data architecture

both

none

Answer: software architecture

23) An early stage of the system design process

Data design

Software design

architectural design

None of above

Answer: architectural design

24) What Represents the link between specification and design processes

Data design

Software design

architectural design

None of above

Answer: architectural design

25) What involves identifying major system components and their communications

Data design

Software design

architectural design

none of above

Answer: architectural design

26) The system is decomposed into several principal sub-systems and communications between these sub-systems are identified as ---

System structuring

Control modelling

Modular decomposition

None of above

Answer: System structuring

27) A model of the control relationships between the different parts of the system is established as ---

System structuring

Control modelling

Modular decomposition

None of above

Answer: Control modelling

28) The identified sub-systems are decomposed into modules as ---

System structuring

Control modelling

Modular decomposition

None of above

Answer: Modular decomposition

29) A -------- is a system in its own right whose operation is independent of the services provided by other sub-systems

Sub system

Super system

Co system

System of system

Answer: Sub system

30) A ------is a system component that provides services to other components but would not normally be considered as a separate system

Co-module

module

Sub-module

None of above

Modular

Answer: module

31) Different architectural models may be produced during the ----

design process

Engineering process

-

Answer: design process

32) Each model presents which different perspectives on the architecture

Static structural model

Dynamic process model

Interface model

All of above

Answer: all

33) -------that shows the major system components

Static structural model

Dynamic process model

Interface model

-

Answer: Static structural model

34) ------that shows the process structure of the system

Static structural model

Dynamic process model

Interface model

-

Answer: Dynamic process model

35) -----that defines sub-system interfaces

Static structural model

Dynamic process model

Interface model

-

Answer: Interface model

36) Uses of distributed object architecture is

As a logical model that allows you to structure and organise the system.

As a non flexible approach to the implementation of client-server systems.

As a physical model that allows you to structure and organise the system.

As a view model that allows you to structure and organise the system.

Answer: As a logical model that allows you to structure and organise the system

37) Advantages of distributed object architecture

It allows the system designer to delay decisions on where and how services should be provided

It is a very open system architecture that allows new resources to be added to it as required

The system is flexible and scaleable

All of above

Answer: all

38) Which of following is true for Distributed object architectures

Each distributable entity is an not object

There is no distinction in a distributed object architectures between clients and servers

Object communication is through a non middleware system

Simplest to design than C/S systems

Answer: There is no distinction in a distributed object architectures between clients and servers

39) Three-tier architectures are

In a three-tier architecture, each of the application architecture

layers may execute on a separate processor

Allows for better performance than a thin-client approach and is simpler to manage than a fat-client approach

A more scalable architecture - as demands increase, extra servers can be added

All of above

Answer: all

40) More processing is delegated to the client as the application processing is locally executed

Fat client model

Thin client model

Thin server model

Fat server model

Answer: Fat client model

41) Most suitable for new C/S systems where the capabilities of the client system are known in advance

Fat client model

Thin client model

Thin server model

Fat server model

Answer: Fat client model

42) How do architects influence on developing organization?

Long term business

Immediate business

Organization structure

All of the above

Answer: All of the above

43) Which of the following factors are influenced on the architect?

Background and experience of the architects

Developing an organization

Customers and end users

All of the above

Answer: All of the above

44) More complex than a thin client model especially for management.

Fat client model

Thin client model

Thin server model

Fat server model

Answer: Fat client model

45) Used when legacy systems are migrated to client server architectures

Fat client model

Thin client model

Thin server model

Fat server model

Answer: Thin client model

46) A major disadvantage of ----- is that it places a heavy processing load on both the server and the network

Fat client model

Thin client model

Thin server model

Fat server model

Answer: Thin client model

47) ----- Concerned with presenting the results of a computation to system users and with collecting user inputs

Application processing layer

Data management layer

Presentation layer

None of above

Answer: Presentation layer

48) --- Concerned with providing application specific functionality

Application processing layer

Data management layer

Presentation layer

None of above

Answer: Application processing layer

49) Distribution of process to processor may be pre-ordered or may be under the control of a dispatcher

Multiprocessor architectures

Single processor architectures

Non-processor architectures

Nano processor architectures

Answer: Multiprocessor architectures

50) Which one is true with regards to the architecture business cycle?

The architecture affects the structure of developing organizations

The architecture can affect the enterprise goals of the developing

All of the Above

None of the these

Answer: All of the above

51) System composed of multiple processes which may (but need not) execute on different processors

Single processor architectures

Multiprocessor architectures

Non-processor architectures

Nano processor architectures

Answer: Multiprocessor architectures

52) Architectural model of many large real-time systems is part of

Single processor architectures

Non-processor architectures

Nano processor architectures

None of above

Answer: None

Multiprocessor architectures

Unit 3

1) Architectural Patterns are

Related to large-scale and coarse-grained design

Related to small-scale and coarse-grained design

both

none

Answer: Related to large-scale and coarse-grained design

2) Architectural Patterns are

applied during the early iterations

applied during the post iterations

both

none

Answer: applied during the early iterations

3) Design Patterns are

small and medium-scale design of objects and frameworks

large and medium-scale design of objects and frameworks

both

none

Answer: small and medium-scale design of objects and frameworks

4) Design Patterns are

Applicable to designing a solution for connecting the small scale elements

Applicable to designing a solution for connecting the large scale elements

both

none

Answer: Applicable to designing a solution for connecting the large scale elements

5) Design Patterns are Done during detailed design work after architectural design is 'Solid'

TRUE

FALSE

Answer: true

6) Design patterns are sometimes known as architectural patterns.

TRUE

FALSE

Answer: true

7) Design Patterns are groups of objects and their relationships designed to support a 'good object design'

TRUE

FALSE

Answer: true

8) What is 'good object design?'

yields high cohesion of our objects

has low coupling between our objects

both

none

Answer: both

9) All design involves making decisions

TRUE

FALSE

Answer: true

10) Good object design do not involves the assignment of object responsibilities.

TRUE

FALSE

Answer: false

11) Deciding what methods belong where and how objects interact (their relationships is

critically important and trivial

critically important and NOT trivial

both

none

Answer: critically important and NOT trivial

12) Patterns that help protect other objects from unanticipated access

immutable and read-only interfaces

immutable and not read-only interfaces

both

none

Answer: immutable and read-only interfaces

13) Patterns where you use delegation to gain access to

Adaptor

Facade

Proxy pattern

all

Answer: all

14) Patterns that assist us in separating concerns

observer

singleton

iterator

facade

Answer: observer

15) A pattern is the outline of a reusable solution to a general problem encountered in a particular context

TRUE

FALSE

Answer: true

16) A pattern is the outline of a reusable solution to a specific problem encountered in a general context

TRUE

FALSE

Answer: false

17) A good pattern should

Be as general as possible

Be as specific as possible

Answer: Be as general as possible

18) Pattern contain a solution that has been proven to effectively solve the problem in the indicated context.

Good pattern

Not good pattern

General pattern

Not general pattern

Answer: Good pattern

19) Studying patterns is an effective way to learn from ---

the experience of others

the experience of project manager

the experience of the team laeder

the experience of design team only

Answer: the experience of others

20) The general situation in which the pattern applies

context
problem
solution
project

Answer: context

21) A short sentence or two raising the main difficulty.

context

problem

solution

project

Answer: problem

22) The issues or concerns to consider when solving the problem

forces

problem

solution

project

Answer: forces

23) The recommended way to solve the problem in the given context.

context

problem

solution

project

Answer: solution

24) Solutions that are inferior or do not work in this context.

Antipatterns

Related patterns

references

domain

Answer: Antipatterns

25) Patterns that are similar to this pattern.

Antipatterns

Related patterns

co pattern

domain

Answer: Related patterns

26) Who developed or inspired the pattern

Antipatterns

References

Related patterns

Solution

Answer: References

27) Creational Patterns

Factory method

singleton

prototype

all

Answer: all

28) Structural Patterns

Adapter

Proxy

Facade

all

Answer: all

29) patterns are a common design vocabulary

allows engineers to abstract a problem and talk about that abstraction in isolation from its implementation

embodies a culture; domain-specific patterns increase design speed

both

none

Answer: both

30) patterns capture design expertise and allow that expertise to be communicated

promotes design reuse and avoid mistakes

promotes design reuse

avoid mistakes

none

Answer: promotes design reuse and avoid mistakes

31) What are Benefits of using patterns

improve documentation

understandability

both

none

Answer: both

32) Iterator pattern that is

supports concurrent iteration and element removal

uniform interface for traversing many different data structures

an object that provides a standard way to examine all elements of any collection

all

Answer: all

33) Observer pattern is nothing but --

objects whose state can be watched

objects whose instance can be watched

objects whose class can be watched

objects whose interface can be watched

Answer: objects whose state can be watched

34) ----represent solutions to problems that arise when developing software within a particular context

Design software

Design patterns

Design hardware

Analysis patterns

Answer: Design patterns

35) Patterns capture the --- structure and collaboration among key participants in software designs

static

Dynamic

A and B

None of above

Answer: a & b

36) Patterns facilitate ----- of successful software architectures and designs

Updating

Addition

Manipulate

Reuse

Answer: Reuse

37) Application domain of Design patterns are

CAD and CAE

cellular network management and telecomm switches

program visualization

All of above

Answer: All of above

38) technical areas of Design patterns are

user interface

communications

persistent objects

All of above

Answer: All of above

39) A Design Pattern do not Describes a recurring design structure with identifies classes

Encapsulation

responsibilities

Collaborations

Answer: Encapsulation

40) A Design Pattern Describes a recurring design structure with applicability

trade-offs

consequences

All of above

Answer: all

41) In Design pattern what is content intent?

objects/classes and their responsibilities

situations where pattern can be applied

Problem and Context

scenario illustrates a design problem

Answer: Problem and Context

42) In the Design pattern what is motivation?

objects/classes and their responsibilities

situations where pattern can be applied

Problem and Context

the scenario illustrates a design problem

Answer: the scenario illustrates a design problem

43) In the Design pattern what is participants?

objects/classes and their responsibilities

situations where pattern can be applied

Problem and Context

scenario illustrates a design problem

Answer: objects/classes and their responsibilities

44) In Design pattern what is Applicability

objects/classes and their responsibilities

situations where pattern can be applied

Problem and Context

the scenario illustrates a design problem

Answer: situations where pattern can be applied

45) In Design pattern what is Structure?

graphical representation of classes

objects/classes and their responsibilities

how participants collaborate

trade-offs and results

Answer: graphical representation of classes

46) In the Design pattern what are Collaborations for complex projects?

graphical representation of classes

objects/classes and their responsibilities

how participants collaborate

trade-offs and results

Answer: how participants collaborate

47) Which of the following is correct about Creational design patterns.

These design patterns are specifically concerned with communication between objects.

These design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator.

These design patterns concern class and object composition. Concept of inheritance

None of the above.

Answer: These design patterns provide a way to create objects while hiding the creation logic, rather than instantiating objects directly using new operator.

48) Which of the following pattern is used when we need to decouple an abstraction from its implementation so that the two can vary independently?
Bridge Pattern

Adapter Pattern

Singleton Pattern

Answer: Bridge Pattern

49) In Design pattern what is the Consequences for the life-critical project?

graphical representation of classes

objects/classes and their responsibilities

how participants collaborate

trade-offs and results

Answer: trade-offs and results