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For FINAL TERM Exams

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VU-Sahiwal & Hasilpur

1. In a ………….., each program module is represented by a rectangular box.
Use case diagram 33
Class diagram
Document flow diagram
Data flow diagram

2. ……………... is a diagramming technique used to identify the types of objects in the system and the static relationships that exist among them?
Class Diagram
Document flow diagrams
Data flow diagrams
Flow charts

3. Which one is NOT a type of messages which Sequence Diagrams Depict _____
Synchronous
Synchronous
Create
Update  108

4. Identifying Whole-Part structures (Aggregations) means, what are my ----------------
Components 95
Structures
Modules
Interaction Protocols

5. The design process for identifying the sub-systems making up a system and the framework for sub-system control and communication is:
Architectural Design 115
Interface Design
Component Design
Data Design

6. A complex System evolves from a
Smaller system
Simpler system 69
Bigger system
Medium system

7. A context diagram _____
Describes the context dependencies of a system

Is a DFD which gives an overview of the system 31
Is a detailed description of a system?
Is not used in drawing a detailed DFD

8. When measure of independence of a module or component is low to the other, How would changes in one component have effect on other component?
No
Low 71
High
Equal

9. What is meant by the term 'software crisis'?
Ability to deliver software on time with good quality
A situation in which experienced developers leave the company
Inability of new software to inter-operate with existing software
A situation in which large scale software projects took more time and budget than was planned

10. Which is not included in test criteria applied in a phase of testing?
Functional validity
Interface integrity
Correctness
Programing Logic

11. For inspections, -------------- are prepared that contain information regarding defects.
Tables
Checklists     210
Lists
Frames

12. Static analyzers are software tools for -------------- processing.
Analysis text
Source text 211
Design text
Maintenance Text

13. Holistic medicine, concerns itself with the state of the body as a whole, not the ----------- that is currently attacking it.
Target
Reason
Disease  224
Source

14. What factor has no precipitation in more sophisticated and complex computer-based systems?
Vast use of personal computers.
Vast increases in computer memory and storage capacity.
Greater variety of exotic input/output options.
Profound changes in computer architectures.

15. Software Bugs have multiple names. Which one of the below is not the name of Software Bugs?
Bugs
Defects
Errors
Mistakes 213

16. Unit testing is roughly equivalent to _____ testing for hardware in which each chip is tested thoroughly after manufacturing.

Circuit level
Chip Level      207
Component level
System level

17. Equivalence _____ help you in designing test cases to test the system effectively and efficiently.
Functions
Classes             202
Objects
Interfaces

18- _____ are used to describe flow of data or control in an application.
Code structures
String matching.
Paths
Flow graphs      203

19. Writing test cases and generating test data are processes that demand _____ building capabilities.
Domain
System
Scenario         198
Code

20. The raising of the imaginary error flag is simply called raising or _____ an error.
Throwing                              187
Sending
Casting
Handling

21. _____ requirements are often called product features.
Functional
Business 22
User
Non-functional

22. Many compilers limit the maximum number of bits in the bit field to the size of a(n) _____.
Integer             183
Float
Character
Double

23. In Java,  ">>"  is used for _____  shift and  ">>>"  for _____ shift.
Arithmetic, Logical        181
Mathematical, Logical
Incremental, Arithmetic
Logical, Arithmetic

24. When large amount of data is to be shared,  repository model is used. This model has been extensively used in the _____ based application.
Mainframe           130
Super Computers
Personal Computers
Real time

25. There are four basic coding structures: sequence, if statement, case statement, and
_____.
For loop
While loop    203
Switch statement
Logical operations

26. _____ is only a reference for defining protocols and designing and implementing
systems developed by different parties.
OSI model
Reference architecture      137
Layered architecture
N-tier architecture

27. The pattern movement became very quiet until _____ when patterns appeared again
at OOPSLA conference.
1987                141
1988
1962
1995

28. STL Stands for _____.
Standard Temporary Line
Standard Temporary Library
Standard Template Library            141
Standard Type Link

29. MVC stands for _____.
Modern View Center
Model View Controller            143
Modern View Controller
Model View Center

30. _____ ensures that a class only has one instance and provides a global point of access to
it.
Singleton Pattern            145
Observer Pattern
Behavioral Pattern
Joint Pattern

31. Which design pattern provides a unified interface to a set of interfaces in a sub-system?
Façade                146
Singleton
Observer
Joint

32. Testing activities require destructive instincts in _____ for the purpose of breaking
system to discover loopholes into its functionality.
Bug Fixers
Tester                198
Developer
Requirement Engineer

33. Camel Case is now the official convention for file names and identifiers in the _____
programming language.
C#
C++
Java                152

Visual Basic.Net

**34.** In presence of _____ bug in a program, the results are the opposite of what is expected.
Memory Leak
Memory Over-runs
Syntax Error
Logical Error      221

**35.** Split lines occur when a statement exceed the _____ column limit.
80 158
90
95
85

**36.** Identifier names play a significant role in enhancing the _____ of a program.
Writability
Readability      151
Reliability
Usability

**37.** *"is"* prefix should be used for_____ variables and methods.
Static
General
Boolean      155
Constant

**38.** Comments should be indented relative to their position in the _____.
Code      165
Design
Analysis
Requirements

**39.** Modularity is a tool that can help us in _____ the size of individual functions.
Stabilizing
Reducing      173
Increasing
Strengthening

**40.** When planning for performance, one should always remember the _____ rule.
80/20      180
70/20
60/20
100/20

**41.** Suppose you are working as a software engineer involved in the development of an e-commerce website.
What are the 2 most important characteristics your software must have? 2 marks

**42.** Name any two standards which are being used by C/C++ for writing programs. 2 marks

**43.** Which other technique along with testing should we use for increasing the effectiveness of defect removal efficiency in a project ? 2marks

**44.** What do you understand by term "self-documenting code"?2 marks

**45.** Briefly describe a business process diagram (at least 3 lines): 3marks

**46.** How does software differ from the artifacts produced by other engineering disciplines ? 3 marks

**47.** What is Exception handling? 3marks

**48.** In which scenario, short circuiting is used? 3marks

**49.** Rewrite the following code by following General naming conventions for C++

1) int fileprefix;
2) const int max_iterations;
3) int getmaxiterations() { ... }
4) template<class t>
5) private int length;   05 marks
50. "A manufacturing company assembles the fans. For this purpose it purchases the raw material containing wires, motors, wings, and magnets. It then assembles the fans from these products".
From above case study, identify different objects that, you think, should be present in final implementation of system.
Note: you can use any methodology to identify the objects. 5marks
51. Discuss the importance of software debugging. 5marks
52. Exceptions do increase the code complexity. Explain this with the help of an example. 5marks


1.   Which of the items listed below is NOT one of the software engineering layers?
Tools
Process
<span style="color:red">Manufacturing</span>
Methods
02. Which of the following is a non-functional requirement of a website which sells songs?
A catalogue of the stock needs to be available for the users to choose from
Customer information should be retained to allow future transactions easier
Users should be able to choose from a set of different languages for the interface
Time taken to download songs in the catalogue should not irritate users
03. The state transition diagram _____
Depicts relationships between data objects
Depicts functions that transform the data flow
Indicates how data are transformed by the system
Indicates system reactions to external events
04. Control flow diagrams are:
Needed to model event driven systems
Required for all systems
Used in place of data flow diagrams
Useful for modeling user interfaces
05. Prototyping ____
Ensures getting the design right the first time
Is the execution of the standard systems development cycle using CASE tools.
Is used to verify if a key process is feasible
Involves an iterative development process with minimum end use involvement.
06. Identifying Whole-Part structures (Aggregations) means, what are my ------------
Components
<span style="color:red">Structures      98</span>
Modules
Interaction Protocols
07. Software architecture is "The _____ of the components of a program/system, their interrelationships, and principles and guidelines governing their design and evolution over time".
Combination
Collection

Structure 120
Unification
08. The object-behavior model indicates how the system _____
Functions in the operating environment
Objects collaborate with one another
Responds to external stimuli
Responds to internal stimuli
09. Perry and Wolfe proposed the following formula for software architecture:
Software architecture = {Forms, Rationale}
Software architecture = {Elements, Forms, Rationale} 125
Software architecture = {Parts, Rationale}
Software architecture = {Parts, Elements}
10. Repository model also provides the -------------------- view of the system.
Global          130
Local
General
Private
11. In the case of zero-install, the network environment is used to _____ server side processing by adding a number of servers which share processing load.
Distribute    133
Centeralize
Shift
De-Synchronize
12. Requirement Statement and Requirement Specification are also called Requirement Definition and _____
Functional Specification        28
Mathematical specification
System Specification
Cost Specification
13. Which of the following is not a fundamental structured programming construct?
Recursion
Condition
Repetition
Sequence
14. For equivalence partitions, we divide the problem in ----------- obvious categories of equal strings
4
3
2       202
5
15.Which is not included in test criteria applied in a phase of testing?
Functional validity
Interface integrity
Correctness
Programing Logic
16. Static analyzers are software tools for ---------------- processing.
Analysis text
Source text       214
Design text
Maintainence Text

# CS504 Software Engineering-I Final Term 2013

17. The first "bug" was actually a moth, which flew through an open window and into one of the Mark --------- 's relays.

II                216
I
III
IV

18. Holistic medicine, concerns itself with the state of the body as a whole, not the ----------- that is currently attacking it.

Target
Reason
Disease
Source

19. Bugs Fixing is done by which of the teams in Software Development lifecycle?

Development Team
Testing Team                not sure
Analysis & Design Team
Process Team

20. Which of the following testing involve purely black box testing?

Unit testing, Beta testing
Acceptance testing, Interface testing
Beta testing, Acceptance testing
Integration testing, Interface testing

21. A memory leak bug is one in which memory is somehow allocated from either the operating system or an ---------- "pool", but never deallocated when the memory is finished being used.

External memory
Mixed memory
Internal Memory     219
Mutually exculive memory

22. Equivalence _____ help you in designing test cases to test the system effectively and efficiently.

Functions
Classes             202
Objects
Interfaces

23_____ are used to describe flow of data or control in an application.

Code structures
String matchings
Paths
Flow graphs             203

24._____ requirements are often called product features.

 Functional
Business
User
Non-functional

25. In Java,  ">>"  is used for _____  shift and  ">>>"  for _____ shift.

Arithmetic, Logical
Mathematical, Logical
Incremental, Arithmetic
Logical, Arithmetic

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26. When large amount of data is to be shared, repository model is used. This model has been extensively used in the _____ based application.

Mainframe          130
Super Computers
Personal Computers
Real time

27. Idea of zero install architecture is to develop a system where no installation on the _____ is needed.

Client side                 133
Server Side
Client & Server Side
Network

28. _____ is only a reference for defining protocols and designing and implementing systems developed by different parties.

OSI model
Reference architecture          137
Layered architecture
N-tier architecture

29. Description of communicating objects and classes that are customized to solve a general design in a particular context is called _____.

Design Pattren               140
System Pattren
System Design
Design System

30. Which of the following is the correct formula for calculating cyclomatic complexity of a program ?

V - N + 2
E - V + 2
E - N + 2              208
E + N – 2

31. In unit testing, developers test _____ code units (modules, classes, etc.) during implementation.

Other's
Their own               210
Mixed code of people
Hidden

32. Performance & Usability are examples of _____ requirements.

Business
Functional
Non-Functional        213
User

33.Which of the following is the correct definition for software testing ?

The process of demonstrating that errors are not present
The process of establishing confidence that a program does what it is supposed to do
The process of executing a program to show it is working as per specifications
The process of executing a program with the intent of finding errors

34. The code is misbehaving in a way that cannot be easily explained.
The above statement is the symptom of _____.

Runtime Error

Logical Error     221
Memory Leak
Exception

35. Secondary private classes can be declared as _____ and reside in the file of the class they belong to.
Asynchronous Classes
Inner classes     158
Outer classes
Synchronous classes

36. Split lines occur when a statement exceed the _____ column limit.
80    158
90
95
85

37. Identifier names play a significant role in enhancing the _____ of a program.
Writability
Readability 151
Reliability
Usability

38. Names representing methods and functions should be _____ and written in mixed case starting with _____ case.
Noun, Lower
Noun, Upper     153
Verb, Upper
Verb, Lower

39. *"is"* prefix should be used for_____ variables and methods.
Static
General
Boolean     155
Constant

40. If you are initializing a variable at the time of declaration, do not declare another _____in the same statement.
Variable     179
Object
Class
Module

41. Consider the following statement:
 "A basket contains 2 Apples and 3 bananas".

What is the relationship between basket and fruits (apples and bananas) 02marks
42. What issue can arise if code is written without keeping the portability factor in mind ?02
43. Which four techniques should be applied in parallel to attain maximum defect removal effeciency ? 02
44. How names representing abbreviations and acronyms should be described in coding style guide? 02
45.What is Textual Analysis? Explain  it.03
46. Discus the symptoms of Memory and Resource Leak bug class. 03
47. Write any two guidelines for developing equivalence partitioning. 03

48. When a small set (a couple of functions) of functions which use each other is so overwhelmingly the bottleneck, there are two alternatives. Write down at least one of them.03

49. Using the architecture of a house or building as a metaphor, draw a comparison with software architecture.

50. Discus the symptoms and an example of Loop errors bug class. 5

51. In Intel architecture, the lowest byte is the most significant byte while in Motorola architecture the highest byte of a word is the most significant one.
Discuss how the above mentioned factor affects portability of program 05

52. Which of the following is/are example of cryptic code?
x *= a;
subkey = subkey >> (bitoff – (bitoff >> 3) << 3));
a = a >> 2;.
FINALTERM EXAMINATION

1. A change becomes ------------- because of close presence of data and fucntions
Localized
Private
Global
Accessible

2. Which of the following is NOT an objective for building an analysis model?
Develop an abbreviated solution for the problem
Establish basis for software design
Define set of software requirements
Describe customer requirements

3. Data flow diagrams are used to handle processes involved in _____
Business Process Transformation
Flow of data                53
Flow of information
Cost estimation

4. The first most important study in developing any system is to indentify
Purpose of the system
Implementation of the system
Design of the system
Architecture of the system               not  sure ☺

5. Software Architecture is all about _____
Requirements gathering
Design                 not conform ☹
Coding
Testing

06. Dynamic components of an OOA model are _____
Not reusable
Sensitive to timing and event processing
Stable throughout the operational life of an application
Structural in nature

7. UML (unified modeling language) analysis modeling focuses on the _____ .
Behavioral model and environment model.
Behavioral model and implementation model.
User model and environmental model

User model and structural model

8. Perry and Wolfe proposed the following formula for software architecture:

Software architecture = {Forms, Rationale}

Software architecture = {Elements, Forms, Rationale}

Software architecture = {Parts, Rationale}

Software architecture = {Parts, Elements}

9.Repository model also provides the --------------------- view of the system

Global     130

Local

General

Private

10. Which of the below is NOT a part of Architectural styles?

Data Center architecture

Client Server Architecture

Hirerical Architercture          129

Layered Architecture

11. Consider the following scenario:

"Student logins the system and checks his/her lecture schedule"

Keeping in mind the use case diagram, and above scenario the one of the post conditions might be:

Student should have a login

System should be available

Student should log-off after checking schedule

Lecture schedule should be displayed date wise

12. When measure of independence of a module or component is low to the other,

How would changes in one component have effect on other component?

No

Low

High

Equal

13. One of the most powerful features of exception handling is that an error can be ----------

over function boundaries.

Thrown               187

Called back

Caught

Sent

14. What is the normal order of activities in which software testing is organized?

Unit, integration, system, validation

System, integration, unit, validation

Unit, integration, validation, system

Integration, unit, system, validation

15. Two tests are considered to be equivalent if it is believed that: if one discovers a defect, the other probably will too, and if one does not discover a defect, --------------------------------.

The other probably may

The other probably can

The other probably won't either                     202

The other probably will

16. For equivalence partitions, we divide the problem in ----------- obvious categories of equal strings

4
3
2
5

17. In -------------- testing we test the structure of the program.
White Box          201
Black Box
System
Regression

18. Static analyzers are software tools for --------------- processing.
Analysis text
Source text      214
Design text
Maintainence Text

19. Unit testing is roughly equivalent to _____ testing for hardware in which each chip is tested thoroughly after manufacturing.
Circuit level
Chip Level      210
Component level
System level

20.A SRS is said to be _____ if and only if, every requirement stated therein has only one interpretation.
Compact
Unambiguous
Consistant
Detailed

21. In Java,  ">>" is used for _____  shift and  ">>>" for _____ shift
Arithmetic, Logical
Mathematical, Logical
Incremental, Arithmetic
Logical, Arithmetic

22. A(n) _____ is a variance from a desired product attribute
Error
Exception
Defect       195
Mistake

23. st cases should be generated for unit testing and system testing during _____.
Testing and maintenance respectively
Requirement analysis
Design and requirement analysis respectively
Coding and design respectively

24. a of zero install architecture is to develop a system where no installation on the ____ is needed.
Client side       133
Server Side
Client & Server Side
Network

25. _____ is NOT a layer of operating system.
Core layer
Application layer

Presentation layer     136
UI layer
26.patterns are devices that allow programs to share knowledge about their _____.
Design         140
Code
Analysis
Testing
27. Which design pattern provides a unified interface to a set of interfaces in a sub-system?
Façade 146
Singleton
Observer
Joint
28. In unit testing, developers test _____ code units (modules, classes, etc.) during implementation.
Other's
Their own       210
Mixed code of people
Hidden
29Inspections cannot check _____  characteristics.
Non-Functioanl.     213
Business
User
Functional
30. Performance & Usability are examples of _____ requirements.
Business
Functional
Non-Functional      213
User
31. Inspections may be applied to any representation of the system which may include all except _____.
Requirements
Design
Testing
Analysis   213
32. Debuggers can be used to display values of _____ .
local variables only
global variables only
static variables only
both local and global variables       229
33. The code is misbehaving in a way that cannot be easily explained.
The above statement is the symptom of _____.
Runtime Error
Logical Error         221
Memory Leak
Exception
34. Ideally speaking, a function should not be larger than _____lines of code and in any case should not exceed one page in length.
20           150
15
30

25

35. CamelCase is now the official convention for file names and identifiers in the _____ programming language.

C#

C++

Java 152

Visual Basic.Net

36. Split lines occur when a statement exceed the _____ column limit.

80

90

95

85

37. The construction should appear at the _____ of the header file

Top      160

Bottom

Left

Right

38. Identifier names play a significant role in enhancing the _____ of a program.

Writability

Readability

Reliability

Usability

39. One of the guidelines to avoid common mistakes is to never use _____ except for declar

,           lectr 33or 34

;

=

||

40. When planning for performance, one should always remember the _____ rule.

80/20

70/20

60/20

100/20

41. E = Number of Edges = 8

N = Number of Nodes = 6

Using the above measures, calculate the cyclomatic complexity, V(G) of Graph G. 02

42. What do you understand by the term System Downtime ?  02

43. If a class uses most of the methods and most of the data members most of the time defined in that class. Then class is having high cohesion or high coupling ?2

44. Conditional expression with negation is always difficult to understand while writing code. Give an example.2

45. Define (Be specific) the following following terms:

1) Program

2) Data

3) Documentation 03

46. Describe three coverage schemes related to white box testing. 3

47. Why Special characters like TAB and Page Break must be avoided.? Explain3

48. Do you agree or not that the use of *do - while* loops should be avoided. Give solid reason?3

49. Consider the following examples:

After playing games/watching shows/engaging in your hobby for X number of hours, your enjoyment level decreases.

After eating X amount of food, your satisfaction of the additional food becomes lesser.

Every additional unit of fertilizer generates a different increase in yield. The first few units probably gives a burst in yield compared to without fertilizer. After that, adding more fertilizer will still give more yield, but at a decreasing rate.

From the above examples, which Law of Economics comes to your mind?

Discuss Software Engineering case by applying that law.  05.

50. *Discus the symptoms and an example of logical error bug class. 5.*

51. Being a software tester, what do you think would be the software testing objectives? Also which test will you call a successful test ? 05

52. Below are two programming terms. You are required to write their uses with at least one example.

*get/set*

*is* prefix   05.

FINALTERM EXAMINATION

CS-504-Software Engineering

1. Following are some statements associated with data flow diagrams. Identify the correct statement from among them.

DFDs are used to model complex interfaces.

DFDs are used to represent only functional processing, data stores and data movements between functions.

DFDs depict only processes which can be decomposed.

DFDs do not show external data sources and external data sinks.

2. A project is considered successful if:

The system was delivered in time and within budget.

The system meets at least some of the customer's requirements.

The system development process has a maximum impact on the ongoing business process.

Minimum time was spent for requirement gathering and designing.

3. A process which does not take input is called _____

Miracle process

Core process

Secondary process

Zombie process

4. Data Flow Diagrams _____

Replace the job of systems analysts

Do not allow every function to work at the same time.

Can be automatically generated by computer aided software engineering tools

Describes how data flows from one logical processing unit to another

5. In a ..........., each program module is represented by a rectangular box.

Use case diagram

Document flow diagram

Class diagram

Data flow diagram

6. Identify the correct description.

The collection of use cases for a system constitutes all the defined ways the system may be used.

UML stands for Unified Markup Language

State transition diagrams are drawn for objects with no significant dynamic behavior.
Object Model depicts the dynamic behavior of system
7. Dynamic components of an OOA model are _____
Not reusable
Sensitive to timing and event processing
Stable throughout the operational life of an application
Structural in nature
8. To determine the architectural style or combination of styles that best fits the proposed system, requirements engineering is used to uncover:
Algorithmic complexity
Characteristics and constraints
Control and data
Design patterns
9. Krutchen's 4+1 architectural view model proposes the development of _____ main views
5    125
4
3
2
10. Repository model also provides the ---------------------- view of the system.
Global
Local
General
Private
11. Client server model tries to _____ data and processing.
Distribute         130
Centralize
Process in parallel
Combine
12. We can divide the whole Software Engineering process in 4 distinct phases namely vision, definition, development, and maintenance.
Which of the following is not among "Definition related" activities of software development?
Requirement verification
Change Control          not sure ☺
Requirement Engineering
Software Requirements
13. What is meant by the term 'software crisis'?
Ability to deliver software on time with good quality
A situation in which experienced developers leave the company
Inability of new software to inter-operate with existing software
A situation in which large scale software projects took more time and budget than was planned
14. Which of the following are external qualities of a software product?
Maintainability, reusability, portability, efficiency, correctness
Correctness, reliability, robustness, efficiency, usability
Portability, interoperability, maintainability, reusability
Robustness, efficiency, reliability, maintainability, reusability
15. Which writing style is best regarding identifier role in enhancing the readability of a program?
If (Flag = = 0)
If (Flag = = START_NUMBER)

If (Z = = START_NUMBER)

If (Z= =0)

16. A useful technique for evaluating the overall complexity of a proposed architecture is to look at the component

Number and size of components

Flow dependencies and sharing dependencies

Size and cost

Algorithms used

17. For equivalence partitions, we divide the problem in ----------- obvious categories of equal strings

4

3

2

5

18. In -------------- testing we test the structure of the program.

White Box

Black Box

System

Regression

19. Which is not included in test criteria applied in a phase of testing?

Functional validity

Interface integrity

Correctness

Programing Logic

20. Inspections can check conformance with a specification but not conformance with the -------------requirements.

Customer's real        213

Developer

Tester

Manger

21. Static analyzers are software tools for --------------- processing.

Analysis text

Source text

Design text

Maintenance Text

22. Holistic medicine, concerns itself with the state of the body as a whole, not the -----------
that is currently attacking it.

Target

Reason

Disease

Source

23. Software deteriorates rather than wears out because

Software suffers from exposure to hostile environments

Defects are more likely to arise after software has been used often

Multiple change requests introduce errors in component interactions

Software spare parts become harder to order

24. Testing is an intellectually demanding activity and has a lifecycle ---------- to software development.

Equal

Parallel        198

Sequential

In contrast

25. A memory leak bug is one in which memory is somehow allocated from either the operating system or an ---------- "pool", but never deallocated when the memory is finished being used.

Mixed memory

External memory

Internal Memory 219

Mutually exculive memory

26. _____ are used to describe flow of data or control in an application.

Code structures

String matchings

Paths

Flow graphs          203

27. Writing test cases and generating test data are processes that demand _____ building capabilities.

Code

Domain

System

Scenario

28. What types of errors are missed by black-box testing and can be uncovered by white-box testing?

Runtime errors

Logic errors

Performance errors

Input errors

29. The cyclomatic complexity metric provides the designer with information regarding the number of _____.

Statements in the program

Cycles in the program

Errors in the program

Independent logic paths in the program  207

30. The best reason for using Independent software test teams is that

Software developers do not need to do any testing

Strangers will test the software mercilessly

Testers do not get involved with the project until testing begins

The conflicts of interest between developers and testers is reduced

31._____ is intended to define a many to many relationship between objects so that when one object changes state all its dependants are notified and updated automatically.

Observer Pattren

Facade Pattren

Singleton Pattren

Joint Pattren

32. _____ ensures that a class only has one instance and provides a global point of access to it.

Behavioral Pattern

Joint Pattern

Singleton Pattern  145

Observer Pattern

33. Inspections cannot check _____ characteristics.

Non-Functioanl                 213
Business
User
Functional

34. Secondary private classes can be declared as _____ and reside in the file of the class they belong to.
Asynchronous Classes
Inner classes                 158
Outer classes
Synchronous classes

35. The construction should appear at the _____ of the header file.
Top
Bottom
Left
Right

36. In the switch statement, cases should always end with _____.
Return
Semi colon
Break                 170
Full stop

37. Modularity is a tool that can help us in _____ the size of individual functions.
Stabilizing
Reducing                 173
Increasing
Strengthening

38. Abstraction and encapsulation are two important tools that can help in managing and mastering the _____ of a program.
Usability
Complexity         173
Understandability
Reliability

39. One of the guidelines to avoid common mistakes is to never use _____ except for declaration.
,
;
=
||

40. Which of the following is/are NOT one of the umbrella activities?
Requirement analysis
Architecture design
Test case development
All of the given options         14

41. Early design decision can vary in software development. Do you agree or not ? Justify your choice 2.

42. Name any two standards which are being used by C/C++ for writing programs. 2

43. Write qualitative benefits of unit testing. 2

44. Do you agree that multilevel commenting is not supported in C++ and Java? 2

45. Briefly describe a business process diagram (at least 3 lines): 3

46. What are static analyzers? 3

47. Write one advantage and one disadvantage of using bit fields in writing the code.3

48. Why the use of do_*while* loops should be avoided ? 3

49. Suppose you were analyzing a Requirement statement, How will you determine that an object belongs to a certain class? 05

50. *Discus the symptoms and an example of Loop errors bug class. 5*

51. In Intel architecture, the lowest byte is the most significant byte while in Motorola architecture the highest byte of a word is the most significant one.

Discuss how the above mentioned factor affects portability of program. 05

52. Which of the following are correct with reference to the abbreviation rules of naming convention?

We should always write:

command instead of cmd

copy instead of cp

initialize instead of init

html instead of HypertextMarkupLanguage

cpu instead of Central Processing Unit  05

# THE END