

Composed By Tariq Hanif
For FINAL TERM Exams
For more help rep at:
tariq.hanif_31176@nadra.gov.pk
tariq_hanif40@yahoo.com



FINAL TERM EXAMINATION

Spring 2012

CS-504-Software Engineering-I (Session - 1) 25-07-2012

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

Maintainence 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

FINAL TERM EXAMINATION

Spring 2012

CS-504-Software Engineering-I (Session - 1) 18-07-2012

1. Which of the items listed below is NOT one of the software engineering layers?
 - Tools
 - Process
 - Manufacturing
 - 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

Structures 98

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

Centralize

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

Programming Logic

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

Analysis text

Source text 214

Design text

Maintenance Text

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 exclusive 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

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 Pattern **140**

System Pattern

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 efficiency ? 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. Discuss 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. Discuss 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?

1. `x *= a;`
2. `subkey = subkey >> (bitoff - (bitoff >> 3) << 3);`
`a = a >> 2;`

FINAL TERM EXAMINATION

Spring 2012

CS-504-Software Engineering-I (Session - 1) 29-07-2012

1. A change becomes ----- because of close presence of data and functions

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 identify

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

Compact

Unambiguous

Consistent

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

29. Inspections cannot check _____ characteristics.

Non-Functionl. 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. $E = \text{Number of Edges} = 8$

$N = \text{Number of Nodes} = 6$

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.

1) *get/set*

2) *is prefix* 05.

FINALTERM EXAMINATION

Spring 2012

CS-504-Software Engineering-I (Session - 1) 28-07-2012

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 exclusive 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 Pattern

Facade Pattern

Singleton Pattern

Joint Pattern

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-Functionl

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. Discuss 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:
1. command instead of cmd
 2. copy instead of cp
 3. initialize instead of init
 4. html instead of HypertextMarkupLanguage
 5. cpu instead of Central Processing Unit 05

THE END