



CS504-Software
Engineering-I
(Solved Macq's)
LECTURE
FROM (23 to 45)



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1. Thin Client Model is one of the configurations of _____ Model.
 - a. Data-centered
 - b. Client Server** page 130
 - c. Layered
 - d. Reference
2. STL Stands for _____
 - a. Standard Template Library** Page 138
 - b. Standard Type Link
 - c. Standard Tempo Line
 - d. Standard Type Link
3. The three basic principles that guide maintainability are:
 - (a) Clarity
 - (b) Enhancement
 - (c) Flexibility
 - (d) Simplicity
 - a. (a),(b) and (c)
 - b. (a),(c) and (d)** page 149
 - c. (b),(c) and (d)
 - d. All of above
4. Goto statements violate the idea of
 - a. object oriented code
 - b. structured code** page 164
 - c. control structure
 - d. repetition structure
5. A function should not be larger in any case and should not exceed _____ in length
 - a. Half page
 - b. One page** page 150
 - c. Two pages
 - d. Three Pages

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6. Data Centered Architectural Style is also called _____
- Repository model** page 129
 - Client Server model
 - Sub System model
 - Reference model
7. Global variables in C++ should always be referred to by using the
- ::operator** page 153
 - :operator
 - Without an operator
 - None of the given
8. There are _____ layers in OSI reference model.
- 5
 - 6
 - 7** page 134
 - 8
9. Dynamic process model shows the process _____ of the System.
- Components
 - Objects
 - Structure** page 129
 - Linkage
10. Which of the following shows a commented statement in C++
- # Ans = first + second
 - // Ans = first + second** page 162
 - \\ Ans = first + second
 - /# Ans = first + second
11. _____ Architectural model is widely used in Mainframe application.
- Client-Server Model**
 - Repository Model** page 130
 - Filter Model
 - Layered Model

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12. Variables should be initialized where they are _____ and they should be declared in the _____ scope possible.
- defined and smallest
 - declared and medium
 - defined and medium
 - declared and smallest page 161**
13. Identifier names also play a significant role in enhancing the _____ of a program,
- Writ ability
 - Readability page 151**
 - Reliability
 - All of the given choices
15. MVC stands for _____
- Model View Controller page 140**
 - Modern View Center
 - Model View Center
 - Modern View Controller
16. Which of the following is not a possible server in client server environment?
- Database Server
 - Transaction Server
 - File Server
 - Time Server page 132**
17. In case of using unrelated operators in a single expression, _____ would be the best choice to prevent the logical errors.
- Comments
 - Indents
 - Parenthesis page 166**
 - Short Cuts
18. In case of header files, construction is to avoid _____ errors, the construction should appear in the top of the file (before the file header).
- Compilation page 160**
 - run time
 - logical
 - All of the given

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19. Which one of these represents the Krutchen's 4+1 architectural view model
- Logical view, Process view. Physical view. Development view. Use case view**
 - Logical view. Dynamic view. Physical view. Development view. Use case view
 - Logical view. Process view, Physical view. Development view. Sequence view
 - Dynamic view, Process view. Physical view, Development view. Use case view
20. Client server is a _____ system model.
- Integrated
 - Distributed** **page 130**
 - Heterogeneous
 - Homogeneous
21. Vertical partitioning is also known as _____
- Balancing
 - Mutating
 - Parallelizing
 - Factoring** **page 135**
22. "is" prefix should be used for _____ variables and methods.
- General
 - Boolean** **page 152**
 - Constant
 - None of the given
23. Thin client model places a heavy processing load on _____
- Only server
 - Only network
 - Both server and network** **page 133**
 - Neither server not network

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24. C++ header files should have the extension _____. Source files can have the extension _____
- a. .c and .h
 - b. .cc and .h
 - c. .h and.cpp page 158**
 - d. All of the given
25. Which of following is among ten things, which the basic template of GOF design pattern includes.
- a. IQ
 - b. Context page 142**
 - c. Performance
 - d. Requirements
26. Vertical partitioning divides the architecture application from a _____ making perspective.
- a. Decision page 135**
 - b. Design
 - c. Conclusion
 - d. Move
27. Issues like system performance, availability, scalability, and security are analyzed in _____
- a. Logical View
 - b. Physical View page 127**
 - c. Code View
 - d. Concurrency View
28. Class variables should never be declared public. Public variables violate which of the following:
- a. Information hiding
 - b. Encapsulation
 - c. Information hiding and Encapsulation page 161**
 - d. None of the give
29. Charles Simonyi first discussed Hungarian Notation, He was of _____
- a. Microsoft page 152**
 - b. IBM
 - c. Dell
 - d. Cisco

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30. Patterns are devices that allow programs to share knowledge about their _____
- a. Code
 - b. Design page 137**
 - c. Analysis
 - d. Implementation
31. Process view in Krutchen's 4+1 architectural view model captures _____
- a. Object model of the design
 - b. Concurrency and synchronization aspects of the design page 122**
 - c. Mapping(s) of the software onto the hardware and reflects its distributed aspect
 - d. Static organization of the software in its development environment
32. In the N-Tire architecture , the idea is to enhance scalability and _____ by disturbing both the data and the application using multiple server machines
- a. Usability
 - b. Performance page 134**
 - c. Interoperability
 - d. Integrity
34. Names representing methods and functions should be _____ and written in mixed case starting with _____ case
- a. Noun _____ lower
 - b. Verb _____ lower page 153**
 - c. Noun _____ upper
 - d. Verb _____ upper
35. Floating point constant should always be written with decimal point and at least _____
- a. One decimal page 164**
 - b. Two decimal
 - c. Three decimal
 - d. none of the given
36. Static structural model shows the major system _____
- a. Leaks
 - b. Components page 129**
 - c. Activates

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37. Objectives Distributing the responsibilities to different subsystems so that we get a software system which is easy to maintain, is called _____ the architecture
- a. Subtracting
 - b. Partitioning** page 138
 - c. Cloning
 - d. Balancing
38. It ensures that a class only has one instance and provides a global point of access to it
- a. Singleton pattern** page 145
 - b. Observer pattern
 - c. Real pattern
 - d. None of the given
39. N-tier architecture stems from the struggle to find a ___ between the fat-client architecture and the thin client architecture
- a. Concurrency
 - b. Distribution point
 - c. Middle ground** page 134
 - d. Similarity
40. In client server model, the application is modeled as a set of that are provided by servers.
- a. Request
 - b. Protocols
 - c. Service** page 130
 - d. Requirements
41. Maintainability and portability issues are discussed in _____
- a. Functional view
 - b. Physical view
 - c. Code view** Page 126
 - d. Logical view

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42. In case of a file server, client request selected records from a ___ and the server transmits recorded to client over the network

- a. Local memory
- b. Network
- c. Database

d. File **Page132**

43. Logical view in Krutchen's 4+1 architectural view model captures _____.

- a. Concurrency and synchronization aspects of the design
- b. Mapping(s) of the software onto the hardware and reflect its distributed aspect

c. Object model of the design

d. Static organization of the software in its development environment

44. When programmers use shortcuts and cryptic codes in their program _____

becomes a major problem.

- a. Maintenance**
- b. Reusability
- c. Availability
- d. Readability

45. Which one is correct?

a. `double total=0.5;`

b. `double total = .5;`

c. `double total = .50;`

d. all of the given

46. "Description of communicating objects and classes that are customized to solve a general design problem in a particular context" is called ___.

- a. Design Pattern**
- b. System Pattern
- c. System Design
- d. Design Method

47. Development view in Krutchen's 4+1 architectural view model captures

- a. Object model of the design
- b. Concurrency and synchronization aspects of the design

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- c. Mapping(s) of the software onto the hardware and reflects its distributed aspect
- d. **Static organization of the software in its development environment**
48. Client server model tries to _____ data and processing.
- a. **Distribute**
- b. Merge
- c. Clone
- d. Proceed
49. Which indent size eliminates the chance of code lines splitting?
- a. **2**
- b. 4
- c. 3
- d. 6
50. Which one of these is a correct short cut used by the programmer?
- a. **x*=a**
- b. x=*a
- c. x*a=
- d. =a*x
51. _____ was the first pure Object Oriented language in which observer pattern was used in implementing its Model View Controller pattern
- a. **Smalltalk**
- b. PASCAL
- c. JAVA
- d. C++
52. Identify the TRUE statement
- a. Portability effects Security
- b. **Size of data types vary from one machine to other**
- c. Size of control structures vary from one machine to other
- d. None of the given options
53. 1) $x = (a + 2 > 3) ? a : a - 1;$
2) $\text{if}((a + 2) > 3)$
 $x =$
 $a;$
 else
 $x = a - 1;$
- a. **Statement (1) is more complex than (2)**

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- b. Statement (2) is more complex than (1)
 - c. Both statements are very complex
 - d. None of the given options
54. which of the following statements are same in output1) `a = a >> 2`
- 2) `a = a/4`
 - 3) `a = a * 2`
 - a. (1) and (3) only
 - b. (2) and (3) only
 - c. (1) and (2) only** **page 168**
 - c. All produce the same result
55. Code should not be:
- a. Commented** **page 130**
 - b. Indented
 - c. aligned
56. If `!(block < activeBlock)` is equivalent to:
- a. `if (block < activeBlock)`
 - b. `if ((block == activeBlock))`
 - c. `if ((block >= activeBlock))`** **page 163**
 - d. None of the given
57. The form for `(;)` should be used for
- a. Nested loop
 - b. Empty loop** **page 159**
 - c. More than 1000 iteration
 - d. Less than 1000 iterations
58. using proper parenthesis normally makes the code
- a. easy to read
 - b. easy to understand** **page 167**
 - c. less ambiguous
 - d. **All of the given option**
59. The clients and servers, in a client server environment, are connected through _____.

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- a. Framework
 - b. Interface
 - c. **Middleware** page 129
 - d. Groupware
60. _____ provides a unified interface to a set of intelligence in a sub-system
- a. Observer pattern
 - b. Singleton pattern
 - c. **Facade pattern** page 143
 - d. All of the above
61. Complex expressions:
- a. Make the code easy to modify
 - b. **Make the code difficult to modify** page 164
 - c. Make the code easy to understand
 - d. Does not affect understandability
62. Bring-in system's a view and define, from the system's perspective, the Software functionally the developers must build.
- a. **Functional Requirements**
 - b. Non-Functional Requirements
 - c. User Requirements
 - d. Business Requirements
63. Which of the following is used for multi-level commenting?
- a. // Comment
 - b. **/*Comment*/**
 - c. (Comment)
 - d. */Comment/*
64. Which of the following is NOT an objective for building an analysis model?
- a. Define set of software requirements
 - b. Describe customer requirements
 - c. **Develop an abbreviated solution for the problem**
 - d. Establish basis for software design
65. Consider the following scenario:
"Student logs in 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:
- a. Students should have a login

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- b. **System should be available**
 - c. Students should log-off after checking schedule
 - d. Lecture schedule should be displayed date wise
66. OOA is intended to define ----- , their relationships, and their behavior.
- a. Variables
 - b. **Classes**
 - c. Objects
 - d. Subjects
67. One of the most powerful features of exception handling is that an error can be -----over function boundaries.
- a. **Thrown**
 - b. Called back
 - c. Caught
 - d. Sent
68. Inspections can check conformance with a specification but not conformance with the -----requirements.
- a. **Customer's real**
 - b. Developer
 - c. Tester
 - d. Manger
69. For inspections, -----are prepared that contain information regarding defects.
- a. Tables
 - b. **Checklists**
 - c. Lists
 - d. Farms
70. The first "bug" was actually a moth, which flew through an open window and into one of the Mark----- 's relays.
- a. **II**
 - b. I
 - c. III
 - d. IV
71. Holistic medicine, concerns itself with the state of the body as a whole, not the---- that is currently attacking it.
- a. Target
 - b. Reason
 - c. **Disease**
 - d. Source

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72. 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.
73. 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
74. When large amount of data is to be shared, repository model is used. This model has been extensively used in the----- based application.
- Mainframe**
 - Super Computers
 - Personal Computers
 - Real time
75. A (n) -----is a variance from a desired product attribute.
- Error
 - Exception
 - Defect**
 - Mistake
76. Performance & usability are example of----- requirements.
- Business
 - Functional
 - Non-Functional**
 - User
77. Camel Case is now the official convention for file names and identifiers in the-----programming language.
- C#
 - C++
 - Java**
 - Visual Basic. Net
78. Comments should be indented relative to their position in the -----.
- Code**
 - Design

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- c. Analysis
 - d. Requirements
79. One of the guidelines to avoid common mistakes is to never use ----- except for declaration.
- a. ,
 - b. :
 - c. =
 - d. II
80. When planning for performance, one should always remember the ----- rule.
- a. 80/20
 - b. 70/20
 - c. 60/20
 - d. 100/20
81. Behavioral class pattern uses ----- relationship to distribute behavior between classes.
- a. Composition
 - b. Aggregation
 - c. Association
 - d. Inheritance
82. Software crisis appeared in-----.
- a. Early 50s
 - b. Early 60s
 - c. Early 70s
 - d. Early 80s
83. In C++ or java, named constants are written in all uppercase letters with ---- to separate words.
- a. Semicolon;
 - b. Underscore
 - c. Colon:
 - d. Dot.
84. Indentation larger than ----- makes deeply nested code difficult to read and increases the chance that the lines must be split.
- a. 2
 - b. 4
 - c. 3
 - d. 1
85. Which phase of software development lifecycle is considered most expensive?

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- a. Requirement Gathering
 - b. System Design
 - c. Maintenance**
 - d. Development
86. A software requirement document describes all the ---- provided by the system along with the constraints under which it must operate.
- a. Conditions
 - b. Services**
 - c. Tasks
 - d. Actions
- 87.----- and functional specification documents are produced in requirement analysis phase.
- a. Feasibility report
 - b. Requirement definition**
 - c. Requirement specification
 - d. Design definition
88. During the program execution most of the time is spent on -----.
- a. Conditional Structure
 - b. Loops**
 - c. Arrays
 - d. Functions
89. Many applications need to be ported on to many different -----.
- a. Platforms**
 - b. Language
 - c. Compilers
 - d. Software
90. There are----- steps involved in identification of structure while deriving object model.
- a. Two**
 - b. Three
 - c. Four
 - d. Five
91. The technique which is used to separate error-handling code from normal code is called -----.
- a. Exceptional handling**
 - b. Function handling
 - c. Code handling

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- d. Variable handling
92. In order to show the presence of a defect, a---- breaks the system.
- Tester
 - Developer
 - Requirement engineer
 - Designer
93. Architectural model proposed by Clements et. al. contains----- views.
- 3
 - 4
 - 5
 - 6
- 94----- server provides set of applications that enable communication among clients using text, images, bulletin boards, video, etc.
- File
 - Database
 - Transaction
 - Groupware
95. is result of efforts to find a middle ground between the fat client architecture and the thin-client architecture.
- Pipe and filter architecture
 - N-tier architecture
 - Three tier architecture
 - Zero install
96. The process view captures the concurrency and----- aspects of the design.
- Synchronization
 - ASynchronization
 - Mapping
 - Data
- 97 involve purely black box testing.
- Unit testing, Beta testing
 - Acceptance testing, Interfacing
 - Beta testing, Acceptance testing
 - Integration testing, Interface testing
- 98 is the correct formula for calculating Cyclomatic complexity of a program.
- $V - N + 2$
 - $E - V + 2$

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- c. **E - N + 2**
d. E + N - 2
- 99 is not included in test criteria applied in a phase of testing.
- Functional validity
 - Interface integrity
 - Correctness
 - Programming Logic**
100. The nature of software application can be characterized by their information-
_____.
- Complexity
 - Content
 - Determinacy
 - Content and determinacy**
101. The best way to conduct a requirements validation review is to-----.
- Examine the system model for errors
 - Have the customer look over the requirements**
 - Send them to the design team and see if they have any concerns
 - Use a checklist of questions to examine each requirements
102. Flow charts represents----- --.
- Sequence Activity**
 - Random Activity
 - Parallel Activity
 - Shuffle Activity
103. A process which does not take input is called-----.
- Miracle process**
 - Core process
 - Secondary process
 - Zombie process
104. State Transition Diagram is helpful in determining -----.
- Business understanding
 - Process flow
 - Data store
 - Control flow
105. In a ----- , each program module is represented by a rectangular box.
- Use case diagram**
 - Document flow diagram
 - Class diagram

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- d. Data flow diagram
106. Which of the following is not a fundamental structured programming construct?
- Recursion
 - Condition
 - Repetition
 - Sequence
107. 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)
108. Exception handling is a powerful technique that separates error-handling code from ----- code.
- Normal
 - Abnormal
 - Single
 - Complex
109. Static analyzers are software tools for -----processing.
- Analysis text
 - Source text
 - Design text
 - Maintenance text
110. Testing is an intellectually demanding activity and has a life cycle-----to software development.
- Equal
 - Parallel
 - Sequential
 - In contrast
111. are used to describe flow of data or control in an application.
- Code structures
 - String matchings
 - Paths
 - Flow graphs
112. Writing test cases and generating test data are processes that demand----- building capabilities.

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- a. Code
 - b. Domain
 - c. System
 - d. **Scenario**
113. Idea of zero install architecture is to develop a system where no installation on the---- is needed.
- a. **Client side**
 - b. Server side
 - c. Client & server side
 - d. Network
114. There are four basic coding structures: sequence, if statement, case statement, and -----.
- a. For loop
 - b. **While loop**
 - c. Switch statement
 - d. Logical operations
115. The pattern movement became very quiet until-----when patterns appeared again at OOPSLA conference.
- a. **1987**
 - b. 1988
 - c. 1962
 - d. 1995
116. In ----- coverage scheme, all possible paths of a program from input instruction to the output instruction are tested.
- a. Branch coverage
 - b. Statement coverage
 - c. **Path coverage**
 - d. System coverage
117. Inspections cannot check -----characteristics.
- a. **Non-Functional**
 - b. Business
 - c. User
 - d. Functional
118. Split lines occur when a statement exceed the ---- column limit.
- a. **80**
 - b. 90
 - c. 95

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- d. 85
119. STL is a library of reusable components provided by -----compilers.
- Java
 - Cobol
 - Small talk
 - C++**
120. In-----, the responsibility of instantiation of an object is given to some other object.
- Behavioral
 - Structural
 - Creational**
 - Observer
121. pattern is an example of creational pattern.
- Façade
 - Singleton
 - Observer
 - Prototyping
122. pattern hides the implementation of the subsystem from clients, making the subsystem easier to use.
- Observer
 - Fecade
 - Creational
 - Singleton
123. language allows short circuiting.
- Pascal
 - C
 - C++**
 - ADA
124. Dynamic memory allocation is done from internal memory storage called---.
- Cache
 - Pool**
 - VRam
 - Boot Memory
125. Context level diagram is also known as-----.
- 0-level DFD**
 - 1-level DFD
 - 2-level DFD

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- d. 3-level DFD
126. Unit testing process is done by----- stakeholder of the software.
- Project manger
 - Customer
 - Software
 - Developer**
127. The number of paths in a program that contains loops tends to -----.
- Finite
 - Infinity**
 - Limited
 - Countable
128. UML is among different ----- which are used for documenting the object oriented design.
- Reports
 - Documents
 - Notations**
 - SRS
129. White box testing is performed to test the _____ of the program
- Logic
 - Structure page 198**
 - Flow
 - Syntax
130. Some bit field members are stored:
- left to right
 - right to left
 - in circular array
- only (I) is true
 - Only (II) is true
 - Only (III) is true
 - e. Both (I) and (II) are true page 183**
131. In order to write a portable code which of the following guideline will not be helpful:
- Stick to the standards
 - Program in the mainstream
 - Size of data types
 - Using vendor specific language extensions**
132. _____ is qualitative benefit of Unit Testing

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- a. Repeatability
 - b. Confidence building page 207**
 - c. Bounded code
 - d. Cost effectiveness
133. In order to development life cycle. Instead of using vendor specific language extensions, use _____ as much as possible
- a. STL page 179**
 - b. ANSI
 - c. ISO
 - d. CMM
134. In system development life cycle, defects cannot enter into the program during _____ phase.
- a. Requirement
 - b. Design
 - c. Coding
 - d. Implementation page 209**
135. _____ and _____ are important short circuiting logical operators.
- a. AND b. OR c. NOTd. NOR
 - a. a & b pae 173**
 - b. b&c
 - c. c&d
 - d. a & c.
136. _____ testing isolates every part of the program and shows that the individual parts are correct.
- a. White Box
 - b. Black Box
 - c. Unit Google**
 - d. System
137. _____ is not a white box testing technique.
- a. Statement Coverage
 - b. Branch Coverage
 - c. Path Coverage
 - d. State Transition Coverage page 202**
138. Chip level testing for hardware is equivalent to _____
- a. White Box
 - b. Black Box
 - c. Unit testing page 207**

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d. System testing

139. For equivalence partitions, we divide the problem in _____ obvious categories.

- a. **Two**
- b. Four
- c. Five
- d. Six

140. Which rewritten form of above line of code is more in line with the self-documentation philosophy than the code above?

- a. `x = false`
- b. `x = NULL`
- c. **`X = 0.0;`**
- d. `x = '\0'`

page 169

141. One of the main reasons to make functions is _____

- a. Reliability
- b. **Reusability**
- c. Maintainability
- d. Efficiency

page 171

142. 80/20 rule states that:

- a. **you spend 80 percent of your time in 20 percent of the code**
- b. you spend 20 percent of your time in 80 percent of the code
- c. We should try to optimized 80 percent or at least 20 percent of the code
- d. We should try to optimized 20 percent or at least 80 percent of the code

143. _____ identifies which statements in a method or class have been executed.

- a. Method Coverage
- b. **Statement Coverage**
- c. Class Coverage
- d. Branch Coverage

144. In _____ system's internal implementation details are not visible to the tester.

- a. White Box Testing
- b. Gray Box Testing
- c. **Black Box Testing**
- d. Both White Box Testing & Gray Box Testing

page 198

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145. Verification and validation are the processes in which we check a product against its _____ and the _____ of the users who will be using it

- a. specifications arguments
- b. statements, expectations

c. specifications, expectations page 192

- d. statements, arguments

146. Objective of _____ is to show that the program does not work

- a. Requirements
- b. Design
- c. Coding

d. testing page 196

147. The raising of the imaginary error flag is simply called raising or _____ an error

- a. Catching
- b. Casting

c. Throwing page 184

- d. Repress

148. Be very careful when you use functions with side effects - functions that change the values of the _____

- a. Objects
- b. Classes
- c. Structures

d. Variables

Be very careful when you use functions with side effects – functions that change the values of the parameters. Page 176

149. The number _____ is the most abused symbol in programs written in C or C++.

- a. 1

b. 0 page 169

- c. 2

- d. 3

150. _____ is a creative activity while _____ is a destructive activity.

a. Development, Testing

b. Testing, Development

c. Validation, Verification

d. Verification, Validation

151. Testing individual components independent of other components is called:

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a. **Unit testing** page 189

b. Module testing

c. Subsystem testing

d. System testing

152. The expressions with logical operators can be evaluated only from_____

a. Right to left

b. **Left to right** page173

c. Top to bottom

d. Bottom to top

153. The complexity of a program may_____if there are exceptional paths in it

a. Decrease

b. **Increase** page 185

c. Remain same

d. Cutback

154. In the switch statement, cases should always end with a_____statement.

a. Switch

b. Go

c. **Break** page 167

d. Stop

155. Cyclomatic complexity measures the logical complexity_____

a. **Quantitatively** page 205

b. Qualitatively

c. Creditably

d. Worthily

156. The size of_____plays a significant role in making the program easy or difficult to understand

a. **Function** page 170

b. Object

c. data type

d. none of the above

157. _____depicts programming instructions that do not have branching or any control information

a. **Sequence** page 200

b. IF

c. While

d. Case

158. for (i =0, col = 0; i < 27; i++,j++)

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In the above line of the code 27 is representing_____.

- a. Real Numbers
 - b. Magic Numbers page 167**
 - c. Constant Numbers
 - d. Positive Numbers
159. The process that involves verification of product with respect to its written requirements is called _____
- a. Maintenance
 - b. Debugging
 - c. Development
 - d. Testing page 192**
160. If an application fulfills its specifications but deviates from users expectations or their desired behavior. This means, software is verified but not _____
- a. Validated page 192**
 - b. Corrected
 - c. Checked
 - d. Traced
161. If a function changes the value of some other accessible data object along with returning its value after execution is called _____
- a. Short Circuiting
 - b. Modularity
 - c. Side Effects page 174**
 - d. Abstraction
162. if (e.Title() == "CEO" || e.Salary() > 10000)
in the above statement if (e.Title()=="CEO") is TRUE then
- a. Second part is not evaluated page 185**
 - b. Second part is always evaluated
 - c. Second part must also be TRUE
 - d. Second part is not evaluated but e.Salary ()is called
163. When an error is thrown the overall system (on the lookout for this error flag) responds by _____ the error
- a. Ignoring
 - b. Casting
 - c. Catching page 184**
 - d. Pass over
164. Testing of collection of modules to discover interfacing problems among interacting modules is called

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- a. Unit testing
 - b. Module testing
 - c. Subsystem testing page 198**
 - d. System testing
165. Constant values used in the program are called
- a. Real Numbers
 - b. Magic Numbers page 168**
 - c. Constant Numbers
 - d. Positive Numbers
166. Bit fields are a convenient way to express many difficult operations. However, bit fields suffer from one problem
- a. Lack of usability
 - b. Lack of security
 - c. Lack of performance
 - d. Lack of portability page 183**
167. Comma (,) is very dangerous because _____
- a. Compiler does not recognize this symbol
 - b. It creates linkage problem
 - c. It causes side effects page 176**
 - d. It does not causes side effects
168. Function testing falls under _____ testing technique
- a. White Box
 - b. Black Box
 - c. Unit page 207**
 - d. System
169. The greatest advantage of exception handling is its ability to handle:
- a. Asynchronous errors page 184**
 - b. Syntax errors
 - c. Memory errors
 - d. Control Structure errors
170. After integrating subsystems into a system, and then testing this system as a whole is called
- a. Unit testing
 - b. Component testing
 - c. Subsystem testing
 - d. System testing**

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171. struct packed_struct{

```
    unsigned int  
    f1:1; } pack;
```

Here in "packed_struct":

- a. value of f1 = 1
 - b. size of f1 = 1 bit page 183**
 - c. value of f1 should not exceed 1
 - d. None of given options
172. The C/C++ language has not specified whether _____ is arithmetic or logical.
- a. Right shift >> page 181**
 - b. Right shift <<
 - c. &&
 - d. ||
173. There are _____ basic coding structures.
- a. One
 - b. Two
 - c. Three
 - d. Four page 200**
174. In _____ control can take either of several branches.
- a. IF
 - b. While
 - c. Case statement page 201**
 - d. Sequence
175. _____ cause major portability issues
- a. Loops
 - b. Bugs in code
 - c. Sizes of data types page 179**
 - d. Conditional Structures
176. A good program must contain _____ infeasible paths.
- a. 0 page 206**
 - b. 1
 - c. N
 - d. Infinite
177. We do not use flow graphs to _____.
- a. Show flow of data

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- b. **Describe decisions**
- c. Show Control in an application
- d. Describe different coding structures
178. The order in which bytes of one word are stored is _____ dependent
- a. **Hardware page 181**
- b. Software
- c. Language
- d. syntax
179. _____ is the starting point, base document for both testing and the development
- a. Software code
- b. Test case document
- c. Software architecture document
- d. **Functional specification document page 196**
180. if a major rework is required to translate a program written for one environment to another, it means code is not or less _____
- a. Secure
- b. Bug Free
- c. platform dependent
- d. **Portable page 179**
181. Which of the following is the correct path for the code:
- If(a%b==0) 1
- C=a+b; 2
- Cout<<c; 3
- a. 1-2-3-1
- b. 1-3-2
- c. **1-2-3**
- d. 2-3-1
182. Switch statement is equal to _____ statement.
- a. if
- b. if-else
- c. nested if
- d. **if-else if page 167**
183. Exception handling provides
- a. Portability mechanism

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- b. Code Usability mechanism
 - c. **Error Handling mechanism page 184**
 - d. Both Portability & Code Usability mechanism
184. Unit Testing will be done by
- a. Testers
 - b. End Users
 - c. Customer
 - d. **Developers page 207**
185. Which type of testing is not concerned with how the inputs are transformed into outputs?
- a. White Box
 - b. Gray Box
 - c. **Black Box page 198**
 - d. Both White Box & Gray Box
186. Consider the following statement: `int a,b=10;`
Which of the following is correct?
- a. variable "a" is initialized to 10
 - b. **Variable "b" is initialized to 10**
 - c. Both variables "a" and "b" are initialized to 10
 - d. variables cannot be initialized this way
187. Software _____ is the process of examining the software product against its requirements.
- a. **Testing page 192**
 - b. Debugging
 - c. Exception handling
 - d. Fixing
188. The idea behind exception handling is to raise some error flag every time
- a. The code compiles
 - b. The code links

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- c. Memory is allocated
d. **Something goes wrong page 184**
189. Bit fields allow the packing of data in a structure, using Bit fields we can:
a. **Read 9 bit integers page 182**
b. Avoid memory leakages
c. Avoid memory overflow
d. Avoid syntax errors
190. _____ is a tool that can help us in reducing the size of individual functions.
a. Inheritance
b. **Modularity page 170**
c. Association
d. Abstraction
191. _____ and _____ are two important tools that helps in managing the program complexity
a. Composition, Inheritance
b. **Abstraction, Encapsulation page 170**
c. Aggregation, Inheritance
d. Modularity, Composition
192. A path through a program which is never traversed for any input data is called
a. Dependent path
b. Independent path
c. **Infeasible path page 206**
d. Feasible path
193. When a small set of functions (which use each other) is so overwhelmingly the bottleneck, there are two alternatives:
a. **use a better algorithm OR re-write the code page 177**
b. debug the code OR place assertions in code
c. remove the functions OR add more functions
d. changed programming language OR compiler at least
194. **The first step in any OOA process model is to _____**
a. build an object-relationship model
b. define collaborations between objects
c. **elicit customer requirements Page603**
d. select a representation language

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195. A necessary supplement to transform or transaction mapping needed to create a complete architectural design is _____.
- entity relationship diagrams
 - the data dictionary
 - processing narratives for each module** Page422
 - test cases for each module
196. All comments should be written in-----
- English (Page 162)**
 - French
 - C++
 - JAVA
197. Which test criteria should be applied in a phase of testing?
- functional validity
 - interface integrity
 - correctness
 - all of the given** Page522
198. The hardest single part of building a software system is deciding precisely-----to build.
- what (Page 17)**
 - How
 - When
 - Why
199. In sequence Diagrams objects are organized in a----- line
- horizontal (Page 106)**
 - vertical
 - horizontal and vertical
 - none of the above
200. Every view is potentially Hierarchical in this regard which of the view are Hierarchical?
- Functional View
 - Development View
 - Concurrency view
 - All of given (Page 125)**
201. Like analysis models, many different kinds of----- models are developed
- Architectural (Page 126)**
 - System
 - Design
 - Logical

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202. Idea behind zero install architecture is to develop a system where no installation on the ----- is needed.
- a. **Client side (Page 130)**
 - b. Server Side
 - c. Client & Server Side
 - d. None of the all
203. The construction is used to avoid----- errors.
- a. **compilation (Page 157)**
 - b. runtime
 - c. design time
 - d. none of them
204. 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, -----
- a. the other probably may
 - b. none of them
 - c. **the other probably won't either Page 199**
 - d. the other probably will
205. It was lady named ----- who actually coin the term "bug" for the fiest time.
- a. Elisay Chistopher
 - b. **Admiral Grace Hopper Page 213**
 - c. Ana Nicholson
 - d. Jane Hopper
206. Symptoms of logical errors are -----
- a. code is misbehaving
 - b. Program doesn't crash, but the flow of program takes odd branches through the code.
 - c. Results are the opposite
 - d. Output looks strange,
 - e. **all of the given Page 218**
207. First-hand accounts of the problem are always useful in Debugging process.
- a. **True Page 225**
 - b. False
208. architecture elements are further divided into categories which in total are -----
- a. 2
 - b. **3 Page 122**
 - c. 4

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- d. 5
209. **Establishing responsibilities for objects includes**
- a. Generalization Relationships
 - b. Specialization Relationships
 - c. all of the above
 - d. **identifying Association relationships Page 101**
210. **Source files can have the extension -----**
- a. .c++
 - b. .C
 - c. .cpp
 - d. **all of the given Page 155**
211. **Which of the following is not a characteristic of software?**
- a. **Software is tangible**
 - b. A change to a piece of code may implicitly affect the functions of the rest of the code.
 - c. Software is configurable.
 - d. Software does not wear and tear.
212. **Which of the following is a fact finding method?**
- a. Site visits
 - b. **Prototyping**
 - c. Study of similar systems
 - d. All of given
- Seven common fact-finding methods (Sampling, Research, Observation, Questionnaires, Interviews, Prototyping, and Joint Requirements Planning) are introduced as a means to discover requirements.**
213. **The statements given below are associated with system development, testing and maintenance. Identify the correct statement from among them:**
- a. **Some of the activities in the implementation phase are building individual system components, writing of programs and development of user interfaces.**
 - b. The post implementation review is performed to see that the computer system is working.
 - c. None of Given
 - d. System development phase consists of a development phase and an implementation phase.
214. **Quantitative methods for assessing the quality of proposed architectural designs are readily available.**

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- a. True
 - b. **False**
215. A decision table should be used _____
- a. to document all conditional statements
 - b. to guide the development of the project management plan
 - c. only when building an expert system
 - d. **when a complex set of conditions and actions appears in a component**
216. Test cases should be designed long before testing begins.
- a. **True** **Page 467**
 - b. False
217. Which of the following are characteristics of testable software?
- a. observability
 - b. simplicity
 - c. stability
 - d. **all of the given** **Page 469**
218. Comparison testing is typically done to test two competing products as part of customer market analysis prior to product release.
- a. True
 - b. **False**
219. By collecting software metrics and making use of existing software reliability models it is possible to develop meaningful guidelines for determining when software testing is done.
- a. **True**
 - b. False
220. Configuration reviews are not needed if regression testing has been rigorously applied during software integration.
- a. True
 - b. **False**
221. A change becomes ----- because of close presence of data and functions
- a. **Localized** **Page 81**
 - b. Private
 - c. Global
 - d. Accessible
222. Requirement engineering mainly deals with the ----- of the system
- a. **definition phase** **Page 16**
 - b. development phase
 - c. maintenance

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- d. none of the above
223. 40-60% of all defects found in software projects can be traced back to poor -----
- a. **Requirements** Page 17
 - b. Design
 - c. Coding
 - d. Testing
224. In the N-Tire Architecture the idea is to enhance scalability and -----
---- by distributing both the data and the application using multiple server machines.
- a. **Performance** Page 131
 - b. Efficiency
 - c. Usability
 - d. none of the all
225. MVC pattern was based on the -----pattern.
- a. **Observer** Page 140
 - b. Structural
 - c. Behavioral
 - d. None of them
226. Classes should be declared in individual header files with the file name matching the----- name.
- a. **class** Page 155
 - b. method
 - c. object
 - d. none of the all
227. Unit testing is roughly equivalent to -----testing for hardware in which each chip is tested thoroughly after manufacturing
- a. Circuit level
 - b. **Chip Level** Page 207
 - c. component level
 - d. system level
228. Software should be tested more like hardware, with Built-in self testing: such that each unit can be tested -----
- a. Freely
 - b. **independently** Page 207
 - c. dependtly
 - d. completely
229. A system -----is the period in which tremendous pressure is on developers end to fix the problem and make the system running again
- a. Uptime

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- b. **Downtime** Page 214
- c. Currentime
- d. Futuretimr
230. Which one of the given below is not a symptom of memory overrun?
- a. Program crashes quite regularly after a given routine is called, that routine should be examined for a possible overrun condition.
- b. If the routine in question does not appear to have any such problem the most likely cause is that another routine, called in the prior sequence, has already trashed variables or memory blocks.
- c. Checking the trace log of the called routines leading up to one with the problem will often show up the error.
- d. **Compiler warnings.** Page 220
231. Three tier architecture contains -----layers
- a. Presentation
- b. Application
- c. Database
- d. **All of the above** Page 131
232. Which of the following is a/are tool used in requirement analysis?
- a. Flow Graphs
- b. **Data Flow Diagrams**
- c. Activity Networks
- d. Module Dependency Diagrams
233. Consider the following comment. "The software which I bought won't run on windows and when it runs I can't use WORD at the same time". Which of the following do you think are violated by the newly bought software?
- a. dependability, interchangeability
- b. **platform independence, interoperability**
- c. reliability, dependency
- d. interoperability, reliability
- 234.....is a diagramming technique used to identify the types of objects in the system and the static relationships that exist among them?
- a. **Class Diagram**
- b. Document flow diagrams
- c. Data flow diagrams
- d. **Flow charts**
235. Which of the following interaction style best suit the design of an interface for visually impaired users?
- a. **direct manipulation** Page 469
- b. direct manipulation

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- c. natural language
 - d. command line
236. Which of the following testing involve purely black box testing?
- a. unit testing, beta testing
 - b. acceptance testing, interface testing
 - c. beta testing, acceptance testing
 - d. **integration testing, interface testing**
237. What are the three generic phases of software engineering?
- a. **definition, development, support** Page 96
 - b. what, how, where
 - c. programming, debugging, maintenance
 - d. analysis, design, testing
238. In the context of requirements analysis, partitioning results in the elaboration of data, function, or behavior.
- a. **True**
 - b. False
239. In refining the DFD during transaction mapping it is unnecessary to create a PSPEC since only the CSPEC is relevant to this type of architectural style.
- a. True
 - b. **False**
240. In transaction mapping the first level factoring results in the _____
- a. creation of a CFD
 - b. **derivation of the control hierarchy**
 - c. distribution of worker modules
 - d. refinement of the module view
241. Variable names must be in mixed case starting with upper case.
- a. True
 - b. **False** Page 150
242. Class variables should be declared public. This concept violates which of the following.
- a. Information hiding
 - b. Encapsulation
 - c. **Information hiding and Encapsulation** Page 158
 - d. None of given
243. Real-time applications add a new and potentially difficult element to the testing mix
- a. performance
 - b. reliability

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- c. security
 - d. **time** Page 498
244. **Top-down integration testing has as its major advantage(s) that**
- a. low level modules never need testing
 - b. **major decision points are tested early**
 - c. no stubs need to be written
 - d. none of the given
245. **is Authorized, assess Performance, get item for UPC, get cashier for number, are the examples of**
- a. **Services** Page 102
 - b. Attributes
 - c. Links
 - d. None of the above
246. **the *development* view describes the ----- organization of the software in its development environment,**
- a. **Static** Page 122
 - b. Dynamic
 - c. Still
 - d. Static & Dynamic
247. **Hungarian Notation was first discussed by Charles Simonyi of-----**
- a. **Microsoft.** Page 149
 - b. Oracle
 - c. Apple Macintosh
 - d. None of the all
248. **The language does not specify whether ----- is signed or unsigned.**
- a. **Char** Page 181
 - b. integer
 - c. double
 - d. constant
249. **A number of invisible execution paths can exist in simple code in a language that allows -----**
- a. **Exceptions** Page 185
 - b. defects
 - c. errors
 - d. all of them
250. **Bugs Fixing is done by which of the teams in Software Development lifecycle?**
- a. **Development Team** Page 196
 - b. Testing Team

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- c. Analysis & Design Team
 - d. Process Team
251. **Software Bugs have multiple names, Which one of the below is not the name of Software Bugs -----**
- a. Bugs
 - b. Defects
 - c. Errors
 - d. **Mistakes Page 213**
252. **In the debugging process a stack trace is a very useful tool.**
- a. **True Page 226**
 - b. False
253. **Stakeholders are different people who would be interested in the -----**
-
- a. **Software Page 24**
 - b. System
 - c. Product
 - d. All of the given
254. **Which of the following is an/are advantage(s) of object oriented analysis & design over structured system analysis & design?**
- a. Ease of modeling real world events
 - b. Reusability
 - c. Maintainability
 - d. **All of given**
255. **The two main documents produced during this phase are Requirement Statement and Requirement Specification. They are also called Requirement Definition and -----**
- a. **Functional Specification Page 25**
 - b. Mathematical specification
 - c. System Specification
 - d. None of the given
256. **A ----- is a code that explains itself without the need of comments and extraneous documentation**
- a. **Self-documenting code Page 147**
 - b. Self-telling Code
 - c. Self-Documenting Design
 - d. None of the above
257. **Bugs that won't "stand still" (almost random) are the ----- to deal with.**
- a. least difficult
 - b. **most difficult Page 226**

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- c. very easy
 - d. easy
258. Association is a type of relation
- a. **Weak OOP , 49**
 - b. Stronger
 - c. Normal
 - d. None of above
259. Bugs that won't (almost random) are the----- to deal with.
- a. **stand still Page 226**
 - b. Dynamic
 - c. Static
 - d. None of above
260. CRUD include following:
- a. Creat
 - b. Update
 - c. Read
 - d. **All of above Page 53**
261. Project ----- defines the concept and range of the proposed solution, and limitations identify certain capabilities that the product will not include
- a. **Scope Page 30**
 - b. Agreement
 - c. Plan
 - d. None of the given
262. The cyclomatic complexity metric provides the designer with information regarding the number of
- a. Cycles in the program
 - b. Errors in the program
 - c. **Independent logic paths in the program**
 - d. Statements in the program
263. Which of the followings is not a testing type?
- a. Subsystem testing
 - b. Alpha testing
 - c. Beta Testing
 - d. **Gamma Testing Page 198**
264. Which of the items listed below is not one of the software engineering layers?
- a. Process
 - b. **Manufacturing**
 - c. Methods

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- d. Tools
- 265. Which piece of code is self-documented?**
- a. `if (x==0) // this is the case when we are allocating a new number`
 - b. `if (AllocFlag == 0)`
 - c. **`If (AllocFlag == NEW_NUMBER)` Page 148**
 - d. None of the given
- 266. UML (unified modeling language) analysis modeling focuses on the**
- a. Behavioral model and environment model.
 - b. Behavioral model and implementation model.
 - c. user model and environmental model
 - d. **user model and structural model Page 604**
- 267. What makes requirements elicitation difficult?**
- a. bounding scope
 - b. understanding user needs
 - c. requirements volatility
 - d. **all of the above Page 285**
- 268. In the architecture trade-off analysis method the architectural style should be described using the**
- a. module view
 - b. process view
 - c. **all of the given Page 403**
 - d. data flow view
- 269. Which of these are objectives for software testing?**
- a. determine the productivity of programmers
 - b. eliminate the need for future program maintenance
 - c. eliminate every error prior to release
 - d. **uncover software errors Page 467**
- 270. In software quality assurance work there is no difference between software verification and software validation**
- a. True
 - b. **False**
- 271. Top-down integration testing has as it's major advantage(s) that**
- a. low level modules never need testing
 - b. major decision points are tested early
 - c. **no stubs need to be written**
 - d. none of the given

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272. Rooko mut jane do depicts one of risks associated with inadequate requirements gathering, the name of that risk is -----
- Ambiguous requirements** Page 20
 - Creeping Requirements
 - Minimal Specification
 - None of the above
273. Interaction Diagrams depict the----- Behavior of the system
- Static
 - Dynamic** Page 106
 - Active
 - None of the above
274. In Sequence Diagrams events are organized in a -----time line
- Vertical
 - Horizontal** Page 106
 - Vertical & Horizontal
 - None of the above
275. object-oriented framework that is a set of cooperative classes that make up reusable _____ of a system
- Code
 - Design** Page 138
 - Analysis
 - none of the all
276. In order to make a code more portable, Instead of using vendor specific language extensions, use ----- as much as possible
- STL** Page 179
 - ANSI
 - ISO
 - CMMI
277. Performance & Usability are examples of ----- requirements
- Business
 - Functionl
 - Non-Functionl** Page 39
 - User
278. According to a survey, when a software application is in the maintenance phase, ----- of its lifecycle cost is attributed towards the defects which are found in the software application after installation
- 20 %** Page 214)
 - 25 %

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- c. 30%
 - d. 35%
279. Bugs that won't "-----" (almost random) are the most difficult to deal with.
- a. **stand still** Page 226
 - b. dynamic
 - c. running
 - d. stand tall
280. If you are initializing a variable at the time of declaration, do not declare another _____ in the same statement.
- a. **variable** Page 176
 - b. object
 - c. class
 - d. None of given
281. During Requirement Engineering process which of the following is/are document(s) used for fact finding?
- a. Company's employee list
 - b. Samples of the company databases
 - c. The company's mission statement and plan
 - d. **All of given**
282. Object-oriented domain analysis is concerned with the identification and specification of reusable capabilities within an application domain.
- a. **True**
 - b. False
283. Fourth generation techniques
- a. Allow software to be developed without any testing.
 - b. Eliminate the need for costly requirements gathering activities.
 - c. **Can reduce the time required to develop software.** Page 73
 - d. Are best used by non-programmers to build small systems
284. Data design actually begins during the creation of the analysis model, not the architectural model.
- a. **True** page397
 - b. False
285. The states shown in a state transition diagram do not necessarily correspond to the processes shown in a control flow diagram for the same system.
- a. **True** page397
 - b. False
286. The criteria used to assess the quality of an architectural design should be based on system
- a. **accessibility and reliability** page404

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- b. data and control
 - c. functionality
 - d. implementation details
287. A useful technique for evaluating the overall complexity of a proposed architecture is to look at the component
- a. number and size of components
 - b. **flow dependencies and sharing dependencies Page 406**
 - c. size and cost
 - d. none of the given
288. The three basic principles that guide maintainability are: simplicity, clarity, and _____.
- a. **Generality Page 146**
 - b. Reliability
 - c. All of the given choices
289. In order to make a program self-documented a number of attributes required. Which one is the attribute/s of self-documented program
- a. **All of the given choices Page 147**
 - b. Size of each function
 - c. Choice of variable
290. Floating point constants should always be written with decimal point and at least
- a. **one decimal Page 161**
 - b. two decimal
 - c. three decimal
291. The code becomes self-explanatory with the help of proper use of parentheses. Select the right one.
- a. `leapYear = year % 4 == 0 && year % 100 != 0 || year % 400 == 0;`
 - b. `leapYear = ((year % 4 == 0) && (year % 100 != 0) || ((year % 400 == 0)));`
 - c. **`leapYear = ((year % 4 == 0) && (year % 100 != 0)) || (year % 400 == 0); Page 164`**
 - d. `leapYear = (year % 4 == 0) && (year % 100 != 0) || (year % 400 == 0);`
292. Graph-based testing methods can only be used for object-oriented system
- a. True
 - b. **False**
293. A class is a----- of objects
- a. **Template page85**
 - b. Stereotype
 - c. Collection
 - d. None of above

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294. A public Interface provides a way for with other Classes.
- Communication**
 - Accessibility
 - Reaching
 - All of the above
295. Software architecture defines the high level structure of the software by putting together a number of architectural-----in an organized fashion.
- Elements** **Page 122**
 - Parts
 - Components
 - None of all
296. Patterns are devices that allow programs to share knowledge about their -----.
- Design** **Page 137**
 - Code
 - Analysis
 - None of all
297. Type conversions must always be done -----
- Explicitly** **Page 158**
 - Implicitly
 - Simultaneously
 - None of them
298. Types that are-----to one file only can be declared inside that file
- Local** **page158**
 - Global
 - Private
 - General
299. The use of do while loops should be -----
- Avoided** **page159**
 - Encouraged
 - Practiced
 - None of them
300. One of the causes of the portability issues is the order of ----- varies from one implementation to other.
- Evaluation** **page181**
 - Numbers
 - Variables
 - Symbols
301. The goal of testing is to expose-----defects in a software system before it is put to use.

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- a. **Latent** page193
 - b. Already present
 - c. Current
 - d. Runtime
302. In the N-tier architecture, the idea is to enhance scalability and----- by distributing both the data and the application using multiple server machines.
- a. Usability
 - b. **Performance** page # 134
 - c. Interoperability
 - d. None
303. In case of a file servers, client requests selected records from a and the server transmits records to client over the network.
- a. Local memory
 - b. Network
 - c. Database
 - d. **File** page #132
304. Alpha testing is:
- a. Testing individual components independent of other components
 - b. Testing a collection of dependent components
 - c. Validation against user expectations
 - d. **Acceptance testing for customized projects, in-house testing for products** page#201
305. This code uses the % operator to set the rear pointer to 0 once it has reached
- a. Min-Size
 - b. **Max-Size** Page 169
 - c. Both
 - d. None
306. Which of these represents the Krutchen's 4+1 architectural view model?
- a. **Logical view, Process view, Physical view, Development view, Use case view**
 - b. Logical view, Dynamic view, Physical view, Development view, User case view
 - c. Logical view, Process view, Physical view, Development view, Sequence view
 - d. Dynamic view, Process view, Physical view, Development view, Use case view
307. Vertical participation divides the architecture application from a making perspective.
- a. **Decision**
 - b. Design
 - c. Conclusion
 - d. Move
308. Anti- Patterns is another concept that corresponds to common in analysis and design.
- a. Mistake
 - b. Issues
 - c. **Problems**
 - d. All of the given
309. block of error-sensitive code with exception handling is called
- a. **Trying to execute a block**
310. Which function throw for several reasons but all that matters for this function is whether

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- a. **Title ()**
311. 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
312. _____ is intended to define a many to many relationship between objects so that when
- One object changes state all its dependents are notified and updated automatically.
 - Observer Pattern**
 - Facade Pattern
 - Singleton Pattern
 - Joint Pattern
313. Secondary private classes can be declared as _____ and reside in the file of the class
- Asynchronous Classes
 - Inner classes PAGE158**
 - Outer classes
 - Synchronous classes
314. The construction should appear at the _____ of the header file.
- Top PAGE 160**
 - Bottom
 - Left
 - Right
315. Modularity is a tool that can help us in _____ the size of individual functions.
- Stabilizing
 - Reducing PAGE 173**
 - Increasing
 - Strengthening
316. Abstraction and encapsulation are two important tools that can help in managing and mastering the _____ of a program.
- Usability
 - Complexity Page173**
 - Understandability
 - Reliability
317. Which of the following is/are NOT one of the umbrella activities?
- Requirement analysis
 - Architecture design
 - Test case development
 - All of the given options Page 14**
318. Which one is NOT a type of messages which Sequence Diagrams Depict _____
- Asynchronous
 - Synchronous
 - Create
 - Update Page 111**

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319. Identifying Whole-Part structures (Aggregations) means, what are my -----
- a. **Components** **PAGE 98**
 - b. Structures
 - c. Modules
 - d. Interaction Protocols
320. The design process for identifying the sub-systems making up a system and the Framework for sub-system control and communication is:
- a. **Architectural Design** **PAGE 118**
 - b. Interface Design
 - c. Component Design
 - d. Data Design
321. A complex System evolves from a
- a. Smaller system
 - b. **Simpler system (GOOG)**
 - c. Bigger system
 - d. Medium system
322. A context diagram _____
- a. Describes the context dependencies of a system
 - b. **Is a DFD which gives an overview of the system (Conceptual)**
 - c. Is a detailed description of a system
 - d. Is not used in drawing a detailed DFD
323. 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?
- a. No
 - b. Low
 - c. **High (Conceptual)**
 - d. Equal
324. What is meant by the term 'software crisis'?
- a. Ability to deliver software on time with good quality
 - b. A situation in which experienced developers leave the company
 - c. **Inability of new software to inter-operate with existing software (Conceptual)**
 - d. A situation in which large scale software projects took more time and budget than was planned
325. Equivalence _____ help you in designing test cases to test the system effectively and efficiently.
- a. Functions
 - b. **Classes** **PAGE 202**
 - c. Objects
 - d. Interfaces
326. _____ requirements are often called product features.
- a. Functional
 - b. **Business**
 - c. User
 - d. Non-functional
327. Many compilers limit the maximum number of bits in the bit field to the size of a(n)

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- a. **Integer** PAGE186
- b. Float
- c. Character
- d. Double
328. In Java, ">>" is used for _____ shift and ">>>" for _____ shift.
- a. **Arithmetic, Logical** PAGE 184
- b. Mathematical, Logical
- c. Incremental, Arithmetic
- d. Logical, Arithmetic
329. _____ is only a reference for defining protocols and designing and implementing systems developed by different parties.
- a. OSI model
- b. **Reference architecture** PAGE 137
- c. Layered architecture
- d. N-tier architecture
330. Testing activities require destructive instincts in _____ for the purpose of breaking system to discover loopholes into its functionality.
- a. Bug Fixers
- b. **Tester** PAGE 198
- c. Developer
- d. Requirement Engineer
331. In presence of _____ bug in a program, the results are the opposite of what is expected.
- a. Memory Leak
- b. Memory Over-runs
- c. Syntax Error
- d. **Logical Error** Page 221
332. Which of the following is a non-functional requirement of a website which sells songs?
- a. A catalogue of the stock needs to be available for the users to choose from
- b. Customer information should be retained to allow future transactions easier
- c. Users should be able to choose from a set of different languages for the interface
- d. **Time taken to download songs in the catalogue should not irritate users (CONCEPTUAL)**
333. The state transition diagram _____
- a. Depicts relationships between data objects
- b. Depicts functions that transform the data flow
- c. **Indicates how data are transformed by the system (CONCEPTUAL)**
- d. Indicates system reactions to external events
334. Comments are not syntax checked
- a. **TRUE** PAGE 165
- b. FALSE
335. Modularity is a tool that can help us in increasing the size of individual functions, making them less readable.
- a. True
- b. **False** PAGE 173

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336. Modules with high cohesion and low coupling can be treated and analysed as
- White boxes
 - black boxes** Page 75
 - grey boxes
 - none of these
337. While establishing the services for an object, the following fundamental questions should be asked:
- Why does the system need this object anyway?
 - What useful questions can it answer?**
 - What useful action can it perform?
 - All of the given options.
338. is a role that each actor plays in the system under consideration.
- An act
 - A participant** PAGE 96
 - A function
 - None of the given
339. Any Engineering approach must be founded on organizational commitment to -----
- Cost
 - Scheduling
 - Quality** Page 115
 - Performance
340. Return values in synchronous messages are:
- Compulsory
 - May not used when response is obvious**
 - Not used at all
 - Represented by solid lines
341. According to Caper Jhones analysis of project activities, coding only has -----affect part in system development.
- 13-14%**
 - 36-40%
 - 50-60%
 - 70-80%
342. 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.
343. 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.

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344. 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
- a. Mixed memory
 - b. External memory
 - c. Internal Memory
 - d. Mutually exclusive memory
345. Control flow diagrams are:
- a. Needed to model event driven systems
 - b. Required for all systems
 - c. Used in place of data flow diagrams
 - d. Useful for modeling user interfaces

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