

Question Paper – Software Engg.

1. Software Engg. Primarily aims on
 - a. Reliable Software
 - b. Cost effective Software
 - c. Reliable and cost effective**
 - d. None of the above
2. A good specification should be
 - a. **Unambiguous**
 - b. Refinement
 - c. functional
 - d. None of the above
3. Which of the following is a tool in design phase?
 - a. Abstraction
 - b. Refinement
 - c. Information hiding
 - d. All the above**
4. Information hiding is to hide from user, details
 - a. that are relevant to him
 - b. that are not relevant to him**
 - c. that may be maliciously handled by him
 - d. that are confidential
5. In object oriented design of software, which of the following is not true
 - a. Objects inherit the properties of the class
 - b. Classes are defined based on the attributes of objects**
 - c. An object can belong to two classes.**
 - d. Classes are always different.
6. Design phase includes
 - a. data, architecture and procedural designs only
 - b. interface, architecture and procedural designs only
 - c. data, architecture, interface and procedural designs only**
 - d. None of the above
7. Data Structure suitable for the application is discussed in
 - a. data design**
 - b. architectural design**
 - c. procedural design
 - d. interface design
8. Design phase will usually be
 - a. top-down**
 - b. Bottom-up
 - c. random
 - d. None of the above
9. Assertions(declairations) are conditions which are true at the point of execution
 - a. always**
 - b. sometimes
 - c. many times
 - d. no times
10. Assuming the existence of a start and end nodes for a program graph(PG), the total number of paths is equivalent to _____ - set of test data required to test software.
 - a. minimum
 - b. maximum
 - c. optimum**
 - d. supreme

11. Structure programming code includes
- a. sequencing
 - b. alteration
 - c. iteration
 - d. **all of these**
12. Which of the following is a desirable property of module?
- a. **Independency**
 - b. Low cohesiveness
 - c. High coupling
 - d. Multifunction
13. Which of the following types of maintenance takes the maximum chunk of the total maintenance effort in a typical commercial application environment?
- a. Adaptive maintenance
 - b. **Corrective maintenance**
 - c. Preventive maintenance
 - d. maintenance
14. An important aspect in coding is
- a. **Readability**
 - b. productivity
 - c. to use as small memory as possible.
 - d. brevity.
15. One way to improve readability in coding is to
- a. avoid goto statements.
 - b. **name variables & functions according to their use**
 - c. modular the program.
 - e. none of the above.
16. The data flow model of an application mainly shows
- a. **the underlying data and relationship among them**
 - b. processing requirements and the flow of data.
 - c. decision and control information.
 - d. communication network structure
17. According to Brooks, if n is the number of programmers in a project team then the number of communication path is
- a. **$n(n-1)/2$**
 - b. $n \log n$
 - c. n
 - d. $n(n+1)/2$
18. The extent to which the software can control to operate correctly despite the introduction of invalid input is called as
- a. reliability
 - b. robustness
 - c. **fault tolerance**
 - d. portability
19. if the number of conditions in a condition table is n , then maximum number of rules (column) possible is
- a. n
 - b. $2n$
 - c. **2^n**
 - d. $\log_2 n$

20. Which of the following is not true?
- Content coupling in a module is desirable.
 - Logical cohesion in a module is desirable.
 - Stamp coupling is preferred over functional cohesion.
 - All the above.**
21. Configuration management is not concerned with
- controlling changes to source code
 - choice of hardware configuration for an application**
 - controlling documentation changes
 - maintaining versions of software
22. Railway reservation system currently operational in India can be classified as a
- catch processing system
 - real - time system
 - on-line system**
 - expert system
23. Data flow diagram, regular expression and transition table can be combined to provide_____ for functional specification of system software
- decision table
 - finite state automata
 - event table
 - none of the above
24. A program P calls two subprograms P1 and P2. P1 can fail 50% times and P2 can fail 40% times. P can fail
- 50%
 - 60%
 - 10%
 - 70%**
25. Probability of success of two modules in unit testing of 0.9 each. The probability of success of integration testing is 0.9. The joint probability of success is
- 0.9
 - 0.81**
 - 0.729
 - 0.1
26. Which of the following graph theoretic concept will be useful in software testing?
- Cyclomatic number
 - Hamiltonian circuit
 - Eulerian cycle
 - None of the above
27. In a decision table if there are 3 variables and 3 rules, it implies
- specification may not be complete**
 - design could be faulty
 - coding will be incorrect
 - all of the above
28. Which of the following software engineering concept does Add language support?
- Abstraction
 - Generic
 - Information hiding
 - All of the above
29. Which of the following testing method is normally used as the acceptance test for a software system
- regression testing
 - integration testing
 - unit testing
 - function testing**
- acceptance testing is type of system testing**

30. A computer program can often be very satisfactory _____ of a physical system such as road traffic conditions

- a. solution b. replacement c. **simulation** d. model

31. On an average, the programmer months is given by $3.6 \times (\text{KDSI})^{1.2}$. If so, a project requiring one thousand source instruction will require

- a. **3.6 PM** b. 0.36PM c. 0.036PM d. 7.23PM

32. Considering a program graph (PG) with statement as vertices and control as edges, which of the following is not true for any program graph?

- a. **PG is always acyclic** b. PG is always directed graph
c. There won't be any self loop d. PG is always a connected graph.

33. In object oriented design of software, objects have

- a. attributes and name only b. operations and name only
c. **attributes name and operations** d. none of the above

34. Which one is maximum effort distribution in phases of software development?

- a. Requirement analysis b. Design phase
c. Coding d. **Testing**

35. Which one is minimum effort distribution in phases of software development?

- a. **Requirement analysis** b. Design phase
c. Coding d. Testing

36. In testing phase, how much effort distribution?

- a. 10% b. **20%** c. 40% d. 50%

37. How many types of design phase?

- a. one b. **two** c. three d. four

**two phases in design (specially structural design) are 1. architectural design(high level design)
2. detailed design low level design)**

38. In which phase maximum error distribution?

- a. Requirement analysis b. Design
c. **Coding** d. Testing

39. In which phase minimum error distribution in the period of software development?

- a. **Requirement analysis** b. Design
c. Coding d. Testing

40. How much effort distribution in the case of coding

- a. 10% b. **20%** c. 40% d. 50%

41. How much effort distribution in the case of requirement analysis?

- a. **10%**
- b. 20%
- c. 40%
- d. 50%

42. Which one is first phase of software development?

- a. **Requirement analysis**
- b. Design
- c. Coding
- d. Testing

43. Which model is simplest model in software development?

- a. **Waterfall model**
- b. Prototyping
- c. iterative
- d. None of these

44. Which model reduces the cost of development of software?

- a. Waterfall model
- b. **Prototyping**
- c. iterative
- d. None of these

45. In which model advantage of better testing in software development?

- a. Waterfall model
- c
- b. **iterative**
- d. None of these

prototyping model shows dummy implementation, better understanding s of requirements

46. Which model is recent?

- a. **Spiral**
- b. Waterfall model
- c. Prototyping
- d. iterative

47. Which model estimates the total effort in terms of person, months of the technical project staff?

- a. Spiral
- b. Waterfall model
- c. Prototyping
- d. **COCOMO model**

48. Relation of COCOMO model is

- a. $E = a * (KDL)^6$
- b. $E = a * (KDL)^5$
- c. $E = a * (KDL)^7$
- d. $E = a * (KDL)^3$

49. Which model is the best between all models?

- a. Spiral
- b. Waterfall
- c. **Iterative**
- d. COCOMO model

50. The part of the operating system that co-ordinates the activities of other program is called the

- a. **input / output manager**
- b. command processor
- c. supervisor
- d. file manager

51. Device independence allows you to

- a. switch operating systems
- b. add a new I/O device without making changes to other software
- c. **more application software from one machine to another without programming changes**

d. none of the above

52. The file manager is responsible for

- a. naming files
- b. saving files.
- c. deleting files
- d. all of the above.**

53. If a file is to be moved from main memory to a disk, the directory file would be modified by the

- a. supervisor
- b. **file manager**
- c. I/O manager
- d. command processor

54. The shell

- a. accepts command from the user.**
- b. Maintains directories of files
- c. Translates the keyboard's character code

55. Booting the computer means

- a. logging in
- b. loading the resident part of the operating system into memory**
- c. turning the computer on
- d. both (a) and (b) above

56. In an IBM PC, ROM contains

- a. the operating system supervisor
- b. the I/O manager
- c. the file manager
- d. all the above

57. An incorrectly typed command will cause the operating system to display

- a. an error message**
- b. a prompt
- c. a question mark
- d. none of the above

58. The DIR command in DOS operating system

- a. copies files
- b. erases files
- c. extracts a list of file names**
- d. none of the above

59. When ERASE command is used

- a. the file content is erased
- b. the filename is deleted from the dir
- c. both (a) and (b)**
- d. none of the above

60. Formatting a disk involves

- a. copying the contents of one disk to another disk
- b. preventing a user from coping the disk
- c. erasing the disk and giving it on empty root directory**
- d. none of the above

61. The visual interface developed by Xerox modeled on a

- a. tree
- b. file cabinet
- c. desktop**
- d. none

62. A free form window can be
a. opened b. moved c. resized d. **all of the above**

63. In a tiled window system
a. windows are allowed to overlap
b. to open a window you must cut on existing window in two
c. to resize a window you move its lower right corner
d. all of the above

64. A clipboard
a. can be used to store text notes
b. transfer information between programs
c. can adjust the characteristics of the hardware
d. works like a four function pocket calculator

65. Application software
a. is used to control the operating system
b. includes programs designed to help programmers.
c. performs a specific task for computer users.
d. all of the above

66. A commercial application program normally includes
a. documentation b. tutorial
c. program disks d. **all of the above**

67. A help system in an application program is used
a. make it easy to switch from one mode to another
b. display menus to prompt the users with choices of available commands
c. display explanatory information
d. all of the above

68. A single integrated program may contain
a. programs that take care of all the basic accounting systems used by a business
b. word processing, spread sheet processing, graphics, and data management
c. an operating system and an application program
d. all of the above

69. A visual interface
a. is easy for programmers to create
b. is similar to doing traditional computer programming
c. does not allow users to take short cuts
d. all of the above

70. Utility program includes
a. editors b. spreadsheets c. operating systems d. all

71. As erased file

- a. can never be recovered
- b. can only be recovered if it is still on disk**
- c. can only be recovered if it is still listed on the disk's directory
- d. both (b) and (c)

72. Different sorting programs allow different

- a. maximum key size
- b. maximum number of sorting keys
- c. both (a) and (b) above
- d. none of the above**

73. A RAM disk

- a. is a program that makes part of memory appear to other programs as if it were a high – speed disk drive
- b. can make programs run much faster**
- c. add memory to a personal computer
- d. both (a) and (b) above

75. Business application programs include

- a. tax planning and preparation program
- b. drill- and practice programs
- c. expert systems
- d. all of the above**

76. A stock and bond analysis program that focuses on technical analysis will

- a. allow you to establish a database. statistics
- b. analyse each security's market price and volume
- c. both a and b**
- d. none of the above

77 An inventory management program can assist with

- a. the planning with inventory
- b. the purchase of inventory
- c. the distribution of inventory
- d. all of the above**

78. Home finance programs are

- a. project management programs
- b. accounting programs**
- c. inventory management programs
- d. none of the above

79. Most home finance programs

- a. use full screen menu prompts
- b. allow erroneous transactions to be corrected directly.
- c. Can be used to generate reports
- d. All of the above**

80. Vertical market application programs include

- a. database managements systems
- b. farm managements programme
- c. home finance program
- d. all of the above**

81. An expert system

- a. simulates the reasoning of a human expert in a particular subject
- b. is an application of artificial intelligence research
- c. both a and b**
- d. none of the above

82. An example of an expert system is

- a. the Internist, a medical diagnosis program
- b. a stock and bond analysis program
- c. a structural analysis program
- d. all of the above**

83. Educational software includes

- a. drill-and-practice programs
- b. tutorial programs
- c. simulation programs
- d. all of the above**

84. A simulation program

- a. guides novices through the basics of using other computer programs
- b. teaches facts, such as arithmetic operations & spelling
- c. teaches by emulating the response of the system being studied.
- d. None of the above**

85. Drill-practice programs

- a. can adjust to the pace or skill level of the student
- b. emphasize the learning of facts through repetition
- c. both a and b**
- d. none of the above

86. Game programs include

- | | |
|-----------------------|----------------------------|
| a. adventure games | b. simulation games |
| c. video arcade games | d. all of the above |

87. Machine language programs

- a. consists of long sequences binary numbers**
- b. can express the same meaning in fewer statements than Basic programs
- c. both a and b
- d. none of the above

88. Basic is an example of
a. machine language b. assembly language
c. a high-level language d. none of the above

89. Mnemonic codes and variables are used in
a. machine language **b. assembly language**
c. a high-level language d. all of the above

90. All variables must be declared at the beginning of
a. a machine language b. an assembly language
c. a BASIC program d. a PASCAL program

91. To write a program that solves a given problem, a programmer
a. designs an algorithm
b. codes an algorithm in a programming language
c. debugs the program
d. all of the above

92. A control structure used to create loops is
a. sequence b. choice
c. iteration d. none of the above.

93. A structure program
a. Can be reduced at control structures
b. Is generally more complicated than non-structured program
c. Can only be modified by the person who wrote it.
d. All of the above.

94. Structured programs do not include
a. Loops **b. GOTO statements**
c. Both (a) and (b) above d. None of the above.

95. All programming languages
a. Are compatible with each other. b. Can be supported by any operating system
c. Have the same syntax. **d. None of the above.**

96. A language's grammar is determined by its.
a. Consistency b. Familiarity
c. Syntax d. None of the above

97. Modularity
a. Is a feature of all programming languages
b. Helps make large programs more understandable
c. Both (a) and (b) above
d. None of the above

98. In a consistent language

- a. **Similar situations are handled in a similar way**
- b. Large program chunks can be broken into smaller modules
- c. Multiplication is always performed before addition in all expressions
- d. Both (a) and (c) above

99. Structured programming is enforced in

- a. PASCAL
- b. BASIC
- c. FORTRAN
- d. **Both (a) and (c) above**

100. A structured programming language

- a. Would not permit the If-THEN-GOTO statement
- b. Would have all program statements have a single entry point and a single exit point
- c. **Both (a) and (b) above**
- d. None of the above

101. An example of a special-purpose symbole-processing language is

- a. PASCAL
- b. **SNOBOL // my answer**
- c. **FORTRAN**
- d. None of the above

102. Control structures include

- a. Iteration
- b. Rendezvous statements
- c. Exception statements
- d. **All of the above**

103. Data structures include

- a. **Arrays**
- b. Exception statement
- c. Iteration
- d. Both (b) and (c) above

104. A module that is supplied along with the programming language translator to make the language easier is called

- a. A benchmark program
- b. **An intrinsic function**
- c. A data structure
- d. None of the above

105. A program written in machine language

- a. Is easy to understand and modify
- b. Runs more slowly than a program written in a high-level
- c. **None of the above**

106. A non-procedural language

- a. Is a low-level language
- b. **Describes what processing is to be done without specifying the particular procedures to be used**
- c. Is frequently used by software designers
- d. Both (a) and (b) above

107. An application generator

- a. Gives a detailed description of what data is to be processed
- b. **Is a translator that converts non-procedural information into a procedural program**
- c. Is typically an extension to the query facility of a DBMS
- d. Both (a) and (c) above

108. A program written for an application generator includes

- a. Procedural statements
- b. **Non-procedural statements**
- c. Both (a) and (b) above
- d. None of the above

109. Aliasing is a situation where

- a. Two commands with different names share the same code
- b. A particular location associated with more than one name
- c. Both (a) and (b) above
- d. None of the above

110. Which of the following is a dangling reference?

- a. Accessing a variable, that is declared but not initialized
- b. Accessing a storage that is already disposed at the request of the processor
- c. **Accessing a storage that is already disposed at the request of the user**
- d. All of the above

111. What is not the type of Software Maintenance?

- a. Adaptive
- b. Corrective
- c. Perfective
- d. **Obsolescence**

112. Which is an iterative through which the requirements are translated into a “blue print” for constructing the software

- a. Testing
- b. Requirements Analysis
- c. **Design**
- d. Maintenance

113. An adaptive maintenance is

- a. To improve the system in some way without changing its basic functionality.
- b. **The maintenance due to the changes in the environment.**
- c. The correction of undiscovered system errors.

114. Which of the following can be a reason of project failure?

- a. Finite resources
- b. **Inaccurate estimation of cost and time**
- c. Others are competing to do the job cheaper and faster

115. What manifests in the patterns of choices made among alternatives ways of expressing an algorithm is

- a. A data flow diagram
- b. Coding style
- c. A data dictionary
- d. **A flow chart**

116. Corrective maintenance is to

- a. Improve the system in some way without changing its functionality
- b. Correct the undiscovered errors**
- c. Make changes in the environment

117. COCOMO is an Effort Estimation model in terms of

- a. Cost
- b. Person Months
- c. both the above**

118. _____ is a method for estimating the software.

- a. COCOMO
- b. Function Point Analysis
- c. Use case Estimation
- d. All the above**

119. Quality control

- a. Focuses on inspections, testing and removal of defects before release.
- b. Is a set of planned and strategic actions to provide confidence that a product or service will satisfy given requirements for quality**
- c. Is to check system for its internal errors.

120. The elements of the software architecture of a computing systems include

- i. software components
- ii. class diagrams
- iii. connectors expressing relationships between software components
- iv. entity relationship diagram

- a. i and ii
- c. i, iii and iv

b. i and iii

d. i, ii, iii and iv

121. Which of the following activities of SDLC involves choosing a system structure capable of satisfying the requirement specification?

- a. Requirement Analysis
- b. Design
- c. Coding

- a. a and c
- c. a, b and c

b. a and b

d. a, c and d

122. Towards the end of the design phase, _____ should be allocated to source code components.

- a. use case
- b. relationships
- c. models
- d. classes**

123. Identify the true statement about using a process for software development

- a. Processes usually divide software development.
- b. Processes provide guidelines for what to do at each phase of development
- c. Processes are used only during the analysis phase of a project
- d. Processes make it easier to measure the progress of a project

- a. a and c
- c. a, b and d**

b. a and b

d. a, c and d

124. What do you think is the first step you should take in designing any project?

- a. Design a prototype
- b. Create the test cases
- c. Define the problem domain and produce a problem statement**
- d. Draw up a plan for the entire project

125. Which of the following best describes what a problem **domain** is?

- a. The kinds of resources available to design team
- b. The surroundings in which a system will operate**
- c. The set of all the functionality's required of a system
- d. The list of technical details needed to implement a project

126. Pick up the odd one out of the following.

- a. Component assembly model**
- b. Spiral model
- c. Incremental model
- d. Iterative model

127. Debugging is technique of _____ testing

- a. Unit**
- b. Integration
- c. System
- d. Stress

128. Which of the following types of test plans is most likely to arise from the requirement specification process?

- a. System integration test plan
- b. Acceptance test plan**
- c. Sub-system integration test plan
- d. Module test plan

129. Pick up the odd one out of the following

- a. Data flow Diagrams
- b. Object Identification**
- c. Structural Decomposition
- d. E-R Diagrams

130. In project planning first thing is

- a. Set objective or goals
- b. Develop strategies and policies
- c. Decision making
- d. Find out requirements**

131. Out of the following which one is not a plan

- a. Test plan
- b. Training plan
- c. Maintenance plan
- d. Delay plan**

132. Which one is not a part of testing

- a. White box testing
- b. Black box testing
- c. Inner Testing**
- d. Gorilla testing

133. Which one of the following is not a part of phase of software development

- a. High level Design
- b. Low level Design
- c. Mid level Design**
- d. Integration and System tests

134. Which one is not a part of spiral model

- a. Planning
- b. Customer communication
- c. Project Documentation**
- d. Engineering

135. The decision logic is expressed by

- a. data flow diagram
- b. flow chart**
- c. structure chart

136. Validation is to check

- a. whether we are building the product right
- b. whether we are building the right product**
- c. the methodology of software development

137. Which software development model incorporates risk management?

- a. waterfall model
- b. spiral model**
- c. incremental model

138. What are the 3 major aspects of any Application Development

- a. Money, Resource, Time**
- b. Money, Efforts, Schedule
- d. Money, Scope, human resources

139. When the program is called Structured programme.

- a. uses only selection and sequence
- b. uses only iteration and branching
- c. uses only sequence, selection and iteration**

140. _____ is a series of identifiable stages that a software product can undergo.

- a. Software Life Cycle**
- b. Software evolution
- c. Software Schedule

141. Please select the statements which are true for Project Planning

- a. Project Planning starts before the contract is signed.
- b. Project Planning starts once the Contract is signed**
- c. Project Initiation is the first step in Project Planning**
- d. Requirements elicitation is a part of Project Planning

142. Evaluating the system as per the stated requirements is called as _____

- a. Verification of System
- b. Validation of System**
- c. None of above

143 During Requirement Analysis phase, detailed document prepared by system analyst is called as _____ (SRS – Software Requirement Specification).

144. Finalizing the requirements is called as _____

- a. Version control b. Approval **c. Base lining**

145. Select the characteristics of a good software design

- a. Correctness** b. Testability **c. Efficiency** **d. Maintainability**

146. In the example of testing the max. no. of connections to the system, type of testing is called as

- a. Volume Testing b. Boundary Testing **c. Stress Testing**

147. Transitive Dependency is handled in _____ normalization

- a. First b. Second **c. Third** d. Fourth

148. The problems faced in different CMM models are resolved in the _____ model

- a. SW-CMM b. PCMM c. **CMMI** d. Six Sigma

149. Lifecycle model selected when the requirements are not clear and product may go on adding features later, is

- a. Iterative life cycle model **b. Evolutionary life cycle model**
c. Spiral lifecycle model **// the correct answer should be prototyping model**

150. One of the estimation technique used for Object Oriented technology development

- a. Function Point Analysis **b. Use Case Point** c. None of above

151. Testing where system components work together as specified by the design is tested, is called as _____

- a. System Testing b. Functional Testing **c. Integration Testing**

152. One of the certification used for security is named as _____ (bs7799)

153. Briefly explain Activity Diagram

154. _____ is a special type of association, where the involved classes represent a whole part relationship.

- a. Inheritance **b. Aggregation** c. None of above

155. Strength of relation between modules is called as _____

- a. Cohesion **b. Coupling** c. Association d. Interrelation

156. Select the basic attributes of Estimations

- a. Cost** **b. Duration** **c. Efforts** d. Schedule

157. _____ is the process of determining whether a fully developed system conforms to its requirements specifications.

- a. Validation **b. Verification** c. None of above

158. Identify the types of testing for Testing In Large

- a. Unit Testing **b. System Testing** c. All of above

159. Briefly explain 'Coverage Testing'

Ans: Strategy of designing Test Cases in such a way that every statement in a program is executed at least once

160. Write down a note on Integration Testing

Ans: Should cover Big-bang Testing, Top-down testing, Bottom-up testing and Mixed Integration Testing

161. Write down a brief note on Six-Sigma

Ans: It's a disciplined, data driven approach to eliminate the defects in any process. Purpose is to reduce the defects in process to do things better, faster and at lower cost. There are sub methodologies, DMAIC and DMADV. DMAIC for existing processes looking for incremental improvements. DMADV for new processes or products to cater to Six sigma quality levels.

162. Select the reasons for Software Crisis

- a. Software Development time are too long
b. Inaccurate estimations
c. Inaccurate planning
d. **All above**

163. Lifecycle model chosen for the project where requirements are known and finalized by the client is

- a. Iterative life cycle b. Evolutionary **c. Waterfall**

164. Please select the statements which are true about **Project Monitoring And Control (PMC)**

- a. PMC is a part of Project Management**
b. Weekly status reports is an input for PMC
c. Monitoring Risk list is a part of PMC
d. Configuration Management Plan creation

165. Data Modeling Languages are -

- a. UML** b. OMT c. Pearl

166. Select the Risk types

- a. Business risk** **b. Project risk** **c. Technical risk**

167. Evaluating the system with respect to its features introduced, comparison with other similar system is called as _____

- a. Verification of System **b. Validation of System** c. None of above

168. Changes to the finalized requirements leads to _____

- a. Configuration Management **b. Requirements Management** c. None of above

169. One of the estimation technique based on size of the product is _____ **LOC**

- a. Function Point Analysis b. Use case Point Technique
c. none of above

170. One of the certification used for security is named as _____ (bs7799)

171. Briefly explain State Diagram

Ans: State diagram explains, what states an object can have in the whole system from the beginning to end.

172. Requirements Volatile Index is used for _____

- a. Requirements elicitation b. Requirements Analysis **c. None of above**

173. _____ in this association, the involved classes are existence-dependant on the whole.

- a. Composition** b. Aggregation c. None of above

174. Object Diagram are also called as _____ diagram

- a. Static **b. Instance** c. None of above

175. Strength of relation within a module is called as _____

- a. Cohesion** b. Coupling c. Association d. Interrelation

176. _____ is the process of determining whether the output of one phase of software conforms to that of its previous phase.

- a. Validation **b. Verification** c. None of above

177. Identify the types of testing for Testing In Small

- a. Unit Testing** b. System Testing c. All of above

178. Briefly explain Path Coverage

Ans: **Strategy of designing Test Cases in such a way that all linearly independent paths in the program are executed at least once.**

179. Select the types of System Testing

- a. Alpha Testing** b. Bottom-up Testing c. All Above

180. Briefly explain Phased vs Incremental Integration Testing

Ans: In incremental testing, at a time only one module is added and in phased testing, group of related module is added to partial system under test

181. Write down a note on Performance Testing

Should contain min. 3 performance testing types from following - Stress, Volume, Configuration, Compatibility, Regression, Recovery, Maintenance, Documentation, Usability testing

182. Write down a brief note on PSP

183. _____ is a named property of a class

- a. Method **b. Attribute** c. None of above

184 Briefly state the reasons behind why OOD improves productivity.

OOD gives code reusability, good maintainability, realistic modelling

185. Domain modeling is also known as _____ modeling

- a. Conceptual** b. Analytical c. None of above

State True or False

a> Feasibility Report do not talk about Legal Aspects of the system **F**

b> MPP is a tool used for application maintenance

c> Context level DFD can have multiple processes

d> Data Dictionary should be associated with DFD **T**

e> Metrics to be captured should be decided while you are executing project. **T**

f> Release Management is a part of configuration Management **T**

g> UML is a script language **F** **uml is data modeling language**

h> Logging of defects should start from Testing phase. **F**

i> Inheritance supports software design reuse in Object Oriented technology **T**

j> Unit Testing is done by QA team. **F**

k> Invalid data should exists in Test Plan **T**

l> Black Box testing is carried out by the peers in the same team **F**

m> Risks identified at the time of proposal are called as Project Risks **F**

n> Plan created for future risks is called as Mitigation Plan. **F**

- o> Object oriented design is always the best approach for the application development **F**
- p> Class diagrams developed using UML can serve as the functional specification of the system.
- q> The interaction diagram can be effectively used to describe how the behavior of an object changes across several use cases.
- r> Coincidental cohesion is the one when tasks are tightly related to each other. **F**
- s> Boundary Value Analysis is an approach to Black Box Testing **F**
- t> Driver module is the one which contains the nonlocal data structures accessed by the module under the test.

ANSWERS -

- a> F b> F c> F d> T e> F f> T g> F h> F i> T j> F k> T l> F m> F n> F o> F p> F
- q> F r> F s> T t> T

State True or False

- a> T b> T c> F d> T e> F f> F g> F h> F i> F j> F k> F l> F m> F n> T o> F p> F
- q> F r> T s> T t> T

a> Contract can be prepared by a person other than a Project Manager.

b> MPP can be used to see the resource overload

c> First level DFD can have 9-10 processes in it.

d> Metrics finalized should depend on the performance objectives set by client or company

e> ClearCase is a tool used for maintaining the defects of the system.

f> Decomposition of modules should be done in detailed Requirement Analysis phase.

g> Project Manager should be involved in reviews of code. // no it creates an impression on other team members that they are being evaluated

h> Self developer of the code should be a part of the walkthrough team

i> Preparation of Test Plan should be started with the Design phase

j> Release Management is a part of Project monitoring and Control.

k> High level req. analysis is dependent on technology which will be used for application development

l> Implementation of CMMI is very expensive because of different models to be implemented for different process areas.

m> Integration Testing is done by developers **F**

n> Plan made up of lessons learnt from the risk occurred is called as Mitigation Plan.

o> Sequence diagram in OOD, can show the relations of all activities with each other(whenever applicable).

p>Object diagrams developed using UML can serve as the functional specification of the system.

q> A State chart diagram is good at describing behaviour that involves multiple objects cooperating with each other to achieve some behaviour.

r> When all the functions in a module refer or update the same data structure, it is called as Communicational Cohesion.

s> Equivalence class partitioning is an approach to Black-Box Testing

black box testing is having two types

- 1. class partitioning testing**
- 2. boundary value analysis**

t>Stub module is the one, which is called by module under the test

ANSWERS

a> T b> T c> F d> T e> F f> F g> F h> F i> F j> F k> F l> F m> F n> T o> F p> F
q> F r> T s> T t> T