1) Software is

(a) Superset of programs (b) subset of programs (c) Set of programs (d) none of the above

Ans. a

2) Which is NOT the part of operating procedure manuals?

(a) User manuals (b) Operational manuals

(c) Documentation manuals (d) Installation manuals

Ans. c

3) Which is NOT a software characteristic?

(a) Software does not wear out (b) Software is flexible

(c) Software is not manufactured (d) Software is always correct

Ans. d

4) Product is

(a) Deliverables (b) User expectations

(c) Organization's effort in development (d) none of the above

Ans. a

5) To produce a good quality product, process should be

(a) Complex (b) Efficient (c) Rigorous (d) none of the above

Ans. b

6) Which is not a product metric?

(a) Size (b) Reliability (c) Productivity (d) Functionality

Ans. c

7) Which is NOT a process metric?

(a) Productivity (b) Functionality (c) Quality (d) Efficiency

Ans. b

8) Effort is measured in terms of:

(a) Person-months (b) Rupees (c) Persons (d) Months

Ans. a

9) UML stands for

(a) Uniform modeling language (b) Unified modeling language

(c) Unit modeling language (d) Universal modeling language

Ans. b

10) An independently deliverable piece of functionality providing access to its services through interface is called

(a) Software measurement (b) Software composition

(c) Software measure (d) Software component

Ans. d

11) Infrastructure software are covered under

a) Generic products (b) Customized products

(c) Generic and Customized products (d) none of the above

Ans. a

12) Management of software development is dependent on

(a) People (b) product (c) Process (d) all of the above

Ans. d

13) During software development, which factor is most crucial?

(a) People (b) Product (c) Process (d) Project

Ans. a

14) Program is

(a) Subset of software (b) super set of software (c) Software (d) none of the above

Ans. a

15) Milestones are used to

(a) Know the cost of the project (b) know the status of the project

(c) Know user expectations (d) none of the above

Ans. b

16) The term module used during design phase refers to

(a) Function (b) Procedure (c) Sub program (d) All of the above

Ans. d

17) Software consists of

(a) Set of instructions + operating system

(b) Programs + documentation + operating procedures

(c) Programs + hardware manuals

(d) Set of programs

Ans. b

18) Software engineering approach is used to achieve:

(a) Better performance of hardware (b) Error free software

(c) Reusable software (d) Quality software product

Ans. d

19) Concept of software engineering is applicable to

(a)FORTRAN language only (b) Pascal language only

(c) ‘C’ language only (d) All of the above

Ans. d

20) CASE Tool is

(a) Computer Aided Software Engineering (b) Component Aided Software Engineering

(c) Constructive Aided Software Engineering (d)Computer Analysis Software Engineering

Ans. A

21) Spiral Model was developed by

(a) Bev Little wood (b) Berry Boehm

(c) Roger Pressman (d) Victor Basili

Ans. b

22) Which model is most popular for student’s small projects?

(a) Waterfall model (b) Spiral model

(c) Quick and fix model (d) Prototyping model

Ans. c

23) Which is not a software life cycle model?

(a) Waterfall model (b) Spiral model

(c) Prototyping model (d) Capability maturity model

Ans. d

24) Project risk factor is considered in

(a) Waterfall model (b) Prototyping model

(c) Spiral model (d) Iterative enhancement model

Ans. c

25) SDLC stands for

(a) Software design life cycle (b) Software development life cycle

(c) System development life cycle (d) System design life cycle

Ans. b

26) Build and fix model has

(a) 3 phases (b) 1 phase (c) 2 phases (d) 4 phases

Ans. c

27) Which of the following is a type of software?

(a) System Software (b) Embedded Software

(c) Application (d) all of the above

Ans. a

28) Waterfall model is not suitable for

(a) small projects (b) accommodating change

(c) complex projects (d) none of the above

Ans. b

29) RAD stands for

(a) Rapid application development (b) Relative application development

(c) Ready application development (d) Repeated application development

Ans. a

30) RAD model was proposed by

(a) Lucent Technologies (b) Motorola (c) IBM (d) Microsoft

Ans. c

31) If requirements are easily understandable and defined, which model is best suited?

(a) Waterfall model (b) Prototyping model

(c) Spiral model (d) None of the above

Ans. a

32) If requirements are frequently changing, which model is to be selected?

(a) Waterfall model (b) Prototyping model

(c) RAD model (d) Iterative enhancement model

Ans. b

33) If user participation is available, which model is to be chosen?

(a) Waterfall model (b) Iterative enhancement model

(c) Spiral model (d) RAD model

Ans. d

34) If limited user participation is available, which model is to be selected?

(a) Waterfall model (b) Spiral model

(c) Iterative enhancement model (d) any of the above

Ans. d

35) If project is the enhancement of existing system, which model is best suited?

(a) Waterfall model (b) Prototyping model

(c) Iterative enhancement model (d) Spiral model

Ans. c

36) Which one is the most important feature of spiral model?

(a) Quality management (b) Risk management

(c) Performance management (d) Efficiency management

Ans. b

37) Most suitable model for new technology that is not well understood is:

(a) Waterfall model (b) RAD model

(c) Iterative enhancement model (d) Evolutionary development model

Ans. d

38) Statistically, the maximum percentage of errors belong to the following phase of SDLC

(a) Coding (b) Design

(c) Specifications (d) Installation and maintenance

Ans. c

39) Which phase is not available in software life cycle?

(a) Coding (b) Testing (c) Maintenance (d) Abstraction

Ans. d

40) The development is supposed to proceed linearly through the phase in

(a) Spiral model (b) Waterfall model (c) Prototyping model (d) None of the above

Ans. b

41) The outcome of construction phased can be treated as:

(a) Product release (b) Beta release (c) Alpha release (d) All of the above

Ans. b

42) Which one is not a step of requirement engineering?

(a) Requirements elicitation (b) Requirements analysis

(c) Requirements design (d) Requirements documentation

Ans. c

43) Requirements elicitation means

(a) Gathering of requirements (b) Capturing of requirements

(c) Understanding of requirements (d) All of the above

Ans. d

44) SRS stands for

(a) Software requirements specification (b) System requirements specification

(c) Systematic requirements specifications (d) None of the above

Ans. a

45) SRS document is for

(a) “What” of a system? (b) How to design the system?

(c) Costing and scheduling of a system (d) System’s requirement.

Ans. a

46) Requirements review process is carried out to

(a) Spend time in requirements gathering (b) Improve the quality of SRS

(c) Document the requirements (d) None of the above

Ans. b

47) Which one of the statements is not correct during requirements engineering?

(a) Requirements are difficult to uncover (b) Requirements are subject to change

(c) Requirements should be consistent (d) Requirements are always precisely known.

Ans. d

48) Which one is not a type of requirements?

(a) Known requirements (b) Unknown requirements

(c) Undreamt requirements (d) Complex requirements

Ans. d

49) Which one is not a requirements elicitation technique?

(a) Interviews (b) The use case approach (c) FAST (d) Data flow diagram.

Ans. d

50) FAST stands for

(a) Functional Application Specification Technique

(b) Fast Application Specification Technique

(c) Facilitated Application Specification Technique

(d) None of the above

Ans. c

51) QFD in requirement engineering stands for

(a) Quality function design (b) Quality factor design

(c) Quality function development (d) Quality function deployment

Ans. d

52) Which is not a type of requirements under quality function deployment?

(a) Normal requirements (b) Abnormal requirements

(c) Expected requirements (d) Exciting requirements

Ans. b

53) Use case approach was developed by

(a) I. Jacobson and others (b) J.D. Musa and others

(c) B. Little wood (d) None of the above

Ans. a

54) Context diagram explains

(a) The overview of the system (b) The internal view of the system

(c) The entities of the system (d) None of the above

Ans. a

55) DFD stands for

(a) Data Flow design (b) Descriptive functional design

(c) Data flow diagram (d) None of the above

Ans. c

56) ERD stands for

(a) Entity relationship diagram (b) Exit related diagram

(c) Entity relationship design (d) Exit related design

Ans. a

57) Which is not a characteristic of a good SRS?

(a) Correct (b) Complete (c) Consistent (d) Brief

Ans. d

58) Outcome of requirements specification phase is

(a) Design Document (b) SRS Document

(c) Test Document (d) None of the above

Ans. b

59) The basic concepts of ER model are:

(a) Entity and relationship (b) Relationships and keys

(c) Entity, effects and relationship (d) Entity, relationship and attribute

Ans. d

60) The DFD depicts

(a) Flow of data (b) Flow of control (c) Both (a) & (b) (d) None of the above

Ans. a

61) Product features are related to:

(a) Functional requirements (b) Non functional requirements

(c) Interface requirement (d) None of the above

Ans. a

62) Which one is a quality attribute?

(a) Reliability (b) Availability (c) Security (d) All of the above

Ans. d

63) IEEE standard for SRS is:

(a) IEEE Standard 837-1998 (b) IEEE Standard 830-1998

(c) IEEE Standard 832-1998 (d) IEEE Standard 839-1998

Ans. b

64) Which one is not a functional requirement?

(a) Efficiency (b) Reliability (c) Product features (d) Stability

Ans. c

65) APIs stand for:

(a) Application performance interfaces (b) Application programming interfaces

(c) Application programming integration (d) Application performance integration

Ans. b

66) After the finalization of SRS, we may like to estimate

(a) Size (b) Cost (c) Development time (d) All of the above.

Ans. d

67 )Which one is not a size measure for software

(a) LOC (b) Function Count

(c) Cyclomatic Complexity (d) Halstead’s program length

Ans. c

68) Function count method was developed by

(a) B.Beizer (b) B.Boehm (c) M.halstead (d) Alan Albrecht

Ans. d

69) Function point analysis (FPA) method decomposes the system into functional units. The total numbers of functional units are

(a) 2 (b) 5 (c) 4 (d) 1

Ans. b

70 )COCOMO was developed initially by

(a) B.W.Bohem (b) Gregg Rothermal (c) B.Beizer (d) Rajiv Gupta

Ans. a

71) A COCOMO model is

(a) Common Cost estimation model (b) Constructive cost Estimation model

(c) Complete cost estimation model (d) Comprehensive Cost estimation model

Ans. b

72) Estimation of software development effort for organic software is COCOMO is

(a) E=2.4(KLOC)1.05PM (b) E=3.4(KLOC)1.06PM

(c) E=2.0(KLOC)1.05PM (d) E-2.4(KLOC)1.07PM

Ans. a

73) Estimation of size for a project is dependent on

(a) Cost (b) Schedule (c) Time (d) None of the above

Ans. d

74) In function point analysis, number of Complexity adjustment factor is

(a) 10 (b) 20 (c) 14 (d) 12

Ans. c

75) COCOMO-II estimation model is based on

(a) Complex approach (b) Algorithm approach

(c) Bottom up approach (d) Top down approach

Ans. b

76) Cost estimation for a project may include

(a) Software Cost (b) Hardware Cost (c) Personnel Costs (d) All of the above

Ans. d

77) In COCOMO model, if project size is typically 2-50 KLOC, then which mode is to be selected?

(a) Organic (b) Semidetached (c) Embedded (d) None of the above

Ans. a

78) COCOMO-II was developed at

(a) University of Maryland (b) University of Southern California

(c) IBM (d) AT & T Bell labs

Ans. b

79) Which one is not a Category of COCOMO-II?

(a) End User Programming (b) Infrastructure Sector

(c) Requirement Sector (d) System Integration

Ans. c

80) Which one is not infrastructure software?

(a) Operating system (b) Database management system

(c) Compilers (d) Result management system

Ans. d

81) How many stages are in COCOMO-II?

(a) 2 (b) 3 (c) 4 (d) 5

Ans. b

82) Which one is not a stage of COCOMO-II?

(a) Application Composition estimation model (b) Early design estimation model

(c) Post architecture estimation model (d) Comprehensive cost estimation model

Ans. d

83) The most desirable form of coupling is

(a) Control (b) Data (c) Common (d) Content

Ans. b

84) The worst type of coupling is

(a) Content (b) Common (c) External (d) Data coupling

Ans. a

85) The most desirable form of cohesion is

(a) Logical cohesion (b) Procedural cohesion

(c) Functional cohesion (d) Temporal cohesion

Ans. c

86) The worst type of cohesion is

(a) Temporal cohesion (b) Coincidental cohesion

(c) Logical cohesion (d) Sequential cohesion

Ans. b

87) Which one is not a strategy for design?

(a) Bottom up design (b) Top down design

(c) Embedded design (d) Hybrid design

Ans. c

88) Software testing is:

(a) The process of demonstrating that errors are not present

(b) The process of establishing confidence that a program does what it is supposed to do

(c) The process of executing a program to show it is working as per specifications

(d) The process of executing a program with the intent of finding errors

Ans. d

89) Software mistakes during coding are known as:

(a) failures (b) defects (c) bugs (d) errors

Ans. c

90) Functional testing is known as:

(a) Structural testing (b) Behavior testing (c) Regression testing (d) None of the above

Ans. b

91) Regression testing is primarily related to:

(a) Functional testing (b) Data flow testing (c) Development testing (d) Maintenance testing

Ans. d

92 )The relationship of data elements in a module is called

(a) Coupling (b) Cohesion (c) Modularity (d) None of the above

Ans. b

93) The extent to which different modules are dependent upon each other is called

(a) Coupling (b) Cohesion (c) Modularity (d) Stability

Ans. a

94) A system that does not interact with external environment is called

(a) Closed system (b) Logical system

(c) Open system (d) Hierarchal system

Ans. a

95) Which one is not a phase of “bath tub curve” of hardware reliability

(a) Burn-in (b) Useful life (c) Wear-out (d) Test-out

Ans. d

96) Software reliability is

(a) The probability of failure free operation of a program for a specified time in a specified environment

(b) The probability of failure of a program for a specified time in a specified environment

(c) The probability of success of a program for a specified time in any environment

(d) None of the above

Ans. a

97) Fault is

(a) Defect in the program (b) Mistake in the program (c) Error in the program (d) All of the above

Ans. d

98) One fault may lead to

(a) one failure (b) two failures (c) many failures (d) all of the above

Ans. d

99) Which ‘time’ unit is not used in reliability studies?

(a) Execution time (b) Machine time (c) Clock time (d) Calendar time

Ans. b

100) Failure occurrences can be represented as

(a) time to failure (b) time interval between failures

(c) failures experienced in a time interval (d) All of the above

Ans. d

101)As the reliability increases, failure intensity

(a) decreases (b) increases (c) no effect (d) None of the above

Ans. a

102) Maximum possible value of reliability is

(a) 100 (b) 10 (c) 1 (d) 0

Ans. c

103) Minimum possible value of reliability is

(a) 100 (b) 10 (c) 1 (d) 0

Ans.d

104) Software Quality is

(a) Conformance to requirements (b) Fitness for the purpose

(c) Level of satisfaction (d) All of the above

Ans.d

105)Defect rate is

(a) Number of defects per million lines of source code

(b) Number of defects per function point

(c) Number of defects per unit of size of software

(d) All of the above

Ans.d

106) How many product quality factors have been proposed in McCall quality model?

(a) 2 (b) 3 (c) 11 (d) 6

Ans. d

107) Which one is not a product quality factor of McCall quality model?

(a) Product revision (b) Product operation

(c) Product specification (d) Product transition

Ans.c

108) The second level of quality attributes in McCall quality model are termed as

(a) quality criteria (b) quality factors (c) quality guidelines (d) quality specifications

Ans.a

109) Which one is not a level in Boehm software quality model?

(a) Primary uses (b) Intermediate constructs (c) Primitive constructs (d) Final constructs

Ans.d

110) Which one is not a software quality model?

(a) McCall model (b) Boehm model (c) ISO 9000 (d) ISO 9126

Ans.c

111) Basic execution time model was developed by

(a) Bev.Littlewood (b) J.D.Musa (c) R.Pressman (d) Victor Baisili

Ans.d

112) NHPP stands for

(a) Non Homogeneous Poisson Process (b) Non Heterogeneous Poisson Process

(c) Non Homogeneous Poisson Product (d) Non Heterogeneous Poisson Product

Ans.a

113 ) In Basic execution time model, failure intensity is given by

(a) *λ(µ)=λ0(1-µ2 / V0*) (b) *λ(µ)=λ0(1-µ/ V0)*

(c) *λ(µ)=λ0(1-V0/ µ2)* (d) *λ(µ)=λ0(1- V0/ µ)*

Ans.b

114 ) In Basic execution time model, additional number of failures required to achieve a failure intensity objective is expressed as

(a)*0/λ0(λP - λF)* (b) )*0/λ0(λF – λP)*

(c) *λ00(λF – λP)* (d) *λ0/0 (λP - λF)*

Ans.a

115 )In Logarithmic Poisson execution model, ‘θ’ is known as

(a) Failure intensity function parameter (b) Failure intensity decay parameter

(c) Failure intensity measurement (d) Failure intensity increment parameter

Ans.b

116) Failure intensity function of Logarithmic Poisson execution model is given as

(a) λ(µ)= *λ0LN(-θµ)* (b) λ(µ)= *λ0exp(θµ)*

(b) λ(µ)= *λ0exp(-θµ)* (c) λ(µ)= *λ0log(-θµ*

Ans.c

117 ) CMM level 1 has

(a) 6 KPAs (b) 2 KPAs (c) 0 KPAs (d) None of the above

Ans.c

118) MTBF stands for

(a) Mean time between failure (b) Maximum time between failures

(c) Minimum time between failures (d) Many time between failures

Ans.a

119 )CMM model is a technique to

(a) Improve the software process (b) Automatically develop the software

(c) Test the software (d) All of the above

Ans.a

120) Total numbers of maturing levels in CMM are

(a) 1 (b) 3 (c) 5 (d) 7

Ans.c

121) Reliability of software is dependent on number of errors

(a) removed (b) remaining (c) both (a) & (b) (d) None of the above

Ans.b

122) Reliability of software is usually estimated at

(a) Analysis phase (b) Design phase (c) Coding phase (d) Testing phase

Ans.d

123) CMM stands for

(a) Capacity maturity model (b) Capability maturity model

(c) Cost management model (d) Comprehensive maintenance model

Ans.b

124) Which level of CMM is for basic project management?

(a) Initial (b) Repeatable (c) Defined (d) Managed

Ans.b

125) Which level of CMM is for process management?

(a) Initial (b) Repeatable (c) Defined (d) Optimizing

Ans.d

126 )CMM was developed at

(a) Harvard University (b) Cambridge University

(c) Carnegie Mellon University (d) Maryland University

Ans.c

127 )The number of clauses used in ISO 9001 are

(a) 15 (b) 25 (c) 20 (d) 10

Ans.c

128)In reliability models, our emphasis is on

(a)errors (b)fault (c) failures (d)bugs

Ans.c

129 ) McCall has developed a

(a) Quality model (b) Process improvement model (c) Requirement model (d) Design model

Ans.a

130) The model to measure the software process improvement is called

(a) ISO 9000 (b) ISO 9126 (c) CMM (d) Spiral model

Ans.c

131) In ISO 9126, each characteristic is related to

(a) one attributes (b) two attributes (c) three attributes (d) four attributes

Ans.a

132) Each maturity model is CMM has

(a) One KPA (b) Equal KPAs (c) Several KPAs (d) no KPA

Ans.c

133) ISO 9126 contains definitions of

(a) quality characteristics (b) quality factors (c) quality attributes (d) All of the above

Ans.d

134 )Which is not a software reliability model ?

(a) The Jelinski-Moranda Model (b) Basic execution time model

(c) Spiral model (d) None of the above

Ans.c

135) In McCall quality model; product revision quality factor consist of

(a) Maintainability (b) Flexibility (c) Testability (d) None of the above

Ans.d

136) In reliability models, our emphasis is on

(a) errors (b) faults (c) failures (d) bugs

Ans.c

137) MTTF stands for

(a) Mean time to failure (b) Maximum time to failure (c) Minimum time to failure (d) None of the above

Ans.a

138 ) Software does not break or wear out like hardware. What is your opinion?

(a) True (b) False (c) Cannot say (d) not fixed

Ans.a

139) Software reliability is defined with respect to

(a) time (b) speed (c) quality (d) None of the above

Ans.a

140 ) KPA in CMM stands for

(a) Key Process Area (b) Key Product Area

(c) Key Principal Area (d) Key Performance Area

Ans.a

141) For a function of n variables, boundary value analysis yields:

(a) 4n+3 test cases (b) 4n+1 test cases (c) n+4 test cases (d) None of the above

Ans.b

142 ) For a function of two variables, how many cases will be generated by robustness testing?

(a) 9 (b) 13 (c) 25 (d) 42

Ans.b

143)For a function of n variables robustness testing of boundary value analysis yields:

(a) 4n+1 (b) 4n+3 (c) 6n+1 (d) None of the above

Ans.c

144 ) A node with indegree=0 and outdegree ≠ 0 is called

(a) Source node (b) Destination node (c) Transfer node (d) None of the above

Ans.a

145)A node with indegree ≠ 0 and out degree=0 is called

(a) Source node (b) Predicate node (c) Destination node (d) None of the above

Ans.c

146 ) A decision table has

(a) Four portions (b) Three portions (c) Five portions (d) Two portions

Ans.a

147 ) Beta testing is carried out by

(a) Users (b) Developers (c) Testers (d) All of the above

Ans.a

148) Equivalence class partitioning is related to

(a) Structural testing (b) Black box testing (c) Mutation testing (d) All of the above

Ans.b

149) Cause effect graphing techniques is one form of

(a) Maintenance testing (b) Structural testing

(c) Function testing (d) Regression testing

Ans.c

150) During validation

(a) Process is checked (b) Product is checked

(c) Developer’s performance is evaluated (d) The customer checks the product

Ans.d

151) Verification is

(a) Checking the product with respect to customer’s expectation

(b) Checking the product with respect to specification

(c) Checking the product with respect to the constraints of the project

(d) All of the above

Ans.b

152) Validation is

(a) Checking the product with respect to customer’s expectation

(b) Checking the product with respect to specifications

(c) Checking the product with respect to the constraints of the project

(d) All of the above

Ans.a

153) Alpha testing is done by

(a) Customer (b) Tester (c) Developer (d) All of the above

Ans.a

154) Site for Alpha testing is

(a) Software company (b) Installation place

(c) Anywhere (d) None of the above

Ans.a

155 ) Site for Beta testing is

(a) Software company (b) User’s site (c) Anywhere (d) All of the above

Ans.b

156) Acceptance testing is done by

(a) Developers (b) Customers (c) Testers (d) All of the above

Ans.b

157) One fault may lead to

(a) One failure (b) No failure (c) Many failure (d) All of the above

Ans.d

158) Test suite is

(a) Set of test cases (b) Set of inputs (c) Set of outputs (d) None of the above

Ans.a

159) Behavioral specification is required for:

(a) Modeling (b) Verification (c) Validation (d) None of the above

Ans.b

160) During the development phase, the following testing approach is not adopted

(a) Unit testing (b) Bottom up testing (c) Integration testing (d) Acceptance testing

Ans.d

161) Which is not a functional testing technique?

(a) Boundary value analysis (b) Decision table (c) Regression testing (d) None of the above

Ans.c

162) Decision table are useful for describing situations in which:

(a) An action is taken under varying sets of conditions.

(b) Number of combinations of actions is taken under varying sets of conditions

(c) No action is taken under varying sets of conditions

(d) None of the above

Ans.d

163) One weakness of boundary value analysis and equivalence partitioning is

(a) They are not effective

(b) They do not explore combinations of input circumstances

(c) They explore combinations of input circumstances

(d) None of the above

Ans.b

164) In cause effect graphing technique, cause & effect are related to

(a) Input and output (b) Output and input (c) Destination and source (d) None of the above

Ans.a

165) DD path graph is called as

(a) Design to Design Path graph (b) Defect to Defect Path graph

(c) Destination to Destination Path graph (d) Decision to decision Path graph

Ans.d

166 )Cyclomatic complexity is developed by

(a) B.W.Boehm (b) T.J.McCabe (c) B.W.Lettlewood (d) Victor Basili

Ans.d

167) An independent path is

(a) Any path through the DD path graph that introduce at least one new set of processing statements or new conditions

(b) Any path through the DD path graph that introduce at most one new set of processing statements or new conditions

(c) Any path through the DD path graph that introduce at one and only one new set of processing statements or new conditions

(d) None of the above

Ans.a

168) Cyclomatic complexity is denoted by

(a) V(G)=e-n+2P (b) V(G)= \_ +1 (c) V(G)=Number of regions of the graph (d) All of the above Ans.d

169) The equation V(G)= ∏ +1 of cyclomatic complexity is applicable only if every predicate node has

(a) two outgoing edges (b) three or more outgoing edges

(c) no outgoing edges (d) none of the above

Ans.a

170 )The size of the graph matrix is

(a) Number of edges in the flow graph (b) Number of nodes in the flow graph

(c) Number of paths in the flow graph (d) Number of independent paths in the flow graph

Ans.b

171) Every node is represented by

(a) One row and one column in graph matrix

(b) Two rows and two columns in graph matrix

(c) One row and two columns in graph matrix

(d) None of the above

Ans.a

172) Cyclomatic complexity is equal to

(a) Number of independent paths (b) Number of paths

(c) Number of edges (d) None of the above

Ans.a

173) Data flow testing is related to

(a) Data flow diagrams (b) E-R diagrams

(c) Data dictionaries (d) none of the above

Ans.d

174) In data flow testing, objective is to find

(a) All dc-paths that are not du-paths (b) All du-paths

(c) All du-paths that are not dc-paths (d) All dc-paths

Ans.c

175) Mutation testing is related to

(a) Fault seeding (b) Functional testing (c) Fault checking (d) None of the above

Ans.a

176) The overhead code required to be written for unit testing is called

(a) Drivers (b) Stubs (c) Scaffolding (d) None of the above

Ans.c

177) Which is not a debugging techniques

(a) Core dumps (b) Traces (c) Print statements (d) Regression testing

Ans.d

178) A break in the working of a system is called

(a) Defect (b) Failure (c) Fault (d) Error

Ans.b

179) Alpha and Beta testing techniques are related to

(a) System testing (b) Unit testing (c) Acceptance testing (d) Integration testing

Ans.c

180) Which one is not the verification activity

(a) Reviews (b) Path testing (c) Walkthrough (d) Acceptance testing

Ans.d

181) Testing the software is basically

(a) Verification (b) Validation (c) Verification and validation (d) None of the above

Ans.c

182) Integration testing techniques are

(a) Top down (b) Bottom up (c) Sandwich (d) All of the above

Ans.d

183) Functionality of software is tested by

(a) White box testing (b) Black box testing (c) Regression testing (d) None of the above

Ans.b

184 )Top down approach is used for

(a) Development (b) Identification of faults (c) Validation (d) Functional testing

Ans.b

185) Thread testing is used for testing

(a) Real time systems (b) Object oriented systems (c) Event driven systems (d) All of the above

Ans.b

186) Testing of software with actual data and in the actual environment is called

(a) Alpha testing (b) Beta testing (c) Regression testing (d) None of the above

Ans.b

187) Level-O DFD is similar to

(a) Use case diagram (b) Context diagram (c) System diagram (d) None of the above

Ans.b

## 188) Temporal cohesion means

(a)cohesion between temporal variables (b) cohesion between local variables

(c) cohesion with respect to time (d)coincidental cohesion.

Ans.c

189) Functional cohesion means

(a) Operations are part of single functional task and are placed in same procedure

(b) Operations are part of single functional task and are placed in multiple procedure

(c) Operations are part of multiple tasks

(d) ) None of the above

Ans.a

190)When two modules refer to same global data area, they are related as

(a)external coupled (b)data coupled (c)content coupled (d)common coupled

Ans.d

191) The module in which instructions are related through flow of control is

(a)temporal cohesion (b)logical cohesion (c)procedural cohesion (d)functional cohesion

Ans.a

192)The most desirable form of coupling is

(a)control coupling (b) data coupling (c)common coupling (d) content coupling

Ans.b

193)The worst type of coupling is

(a)control coupling (b) data coupling (c)common coupling (d) content coupling

Ans.d

194) The most desirable form of cohesion is

(a)logical cohesion (b) procedural cohesion (c)functional cohesion (d) temporal cohesion

Ans.c

195) The worst type of cohesion is

(a)coincidental cohesion (b) procedural cohesion (c)functional cohesion (d) temporal cohesion

Ans.a

196) Which one is not a strategy for design

(a)bottom-up design b) top-down design (c)embedded design (d) hybrid design

Ans.c

197)Function Point can be calculated by

(a)UFP\*CAF (b) UFP\*FAC (c)UFP\*Cost (d) UFP\*Productivity

Ans.b

198) Which is the first step in the software development life cycle?  
 a) Analysis (b) Design (c) Problem/Opportunity Identification d) Development and Documentation

Ans.c

199) In the Analysis phase, the development of the \_\_\_\_\_\_\_\_\_\_\_\_ occurs, which is a clear statement of the goals and objectives of the project.  
 a) Documentation (b) flowchart (c) program specification (d) design

Ans.c

200) Which level of CMM is for process control?

(a) Initial (b) Repeatable (c) Defined (d) Optimizing

Ans.d

------------------------------------------------------------------------------------------

1. *A deviation from the specified or expected behavior that is visible to end-users is called:*

*a) an error  
b) a fault  
c) a failure  
d) a defect*

Ans: C

2. A configuration management system would NOT normally provide:

a*) Linkage of customer requirements to version numbers.  
b) The precise differences in versions of software component source code.  
c) Facilities to compare test results with expected results.  
d) Restricted access to the source code librar*

Ans: C

3. *Test cases are designed during:*

*Test recording.  
Test configuration.  
 Test planning.  
 Test specification*

Ans:D

4. Which of the following statements about reviews is true?

a) Reviews should be performed on specifications, code, and test plans  
b) Reviews are the least effective way of testing code.  
c) Reviews are unlikely to find faults in test plans.  
d) Reviews cannot be performed on user requirements specifications.

Ans: A

5. *In case of Large Systems*

*Only few tests should be run  
Test Cases written by good test engineers should be executed  
 Only Good Test Cases should be executed  
 Testing should be on the basis of Risk*

Ans: D

*6. Which of the following will be the best definition for Testing :*

*a) Testing is executing Software for the purpose of finding defects  
b) The purpose of testing is to demonstrate that the program is defect free*

*c) The purpose of testing is to demonstrate that the program does what it is supposed to do  
d) The* goal / purpose of testing is to demonstrate that the program works.

Ans: A

*7. Which of the following is not a type of incremental testing approach?*

*a) Big-bang  
b) Top down  
c) Bottom up  
d) Functional incrimination*

Ans: A

8. Test Conditions are derived from

a) *Test Design  
b) Test Cases  
c) Test Data  
d) Specifications*

Ans: D

*9. Pick the best definition of quality*

*a) Quality is job one  
b) Zero defects  
c) Work as designed  
d) Conformance to requirements*

Ans: D

*10. Fault Masking is*

*a) Creating a test case which does not reveal a fault  
b) Error condition hiding another error condition  
c) Masking a fault by developer  
d) Masking a fault by a tester*

Ans: B

11.Boundary value testing

a) Is the same as equivalence partitioning tests  
b) Tests combinations of input circumstances  
c) Test boundary conditions on, below and above the edges of input and         output equivalence classes  
d) Is used in white box testing strategy

Ans: C

12. *One Key reason why developers have difficulty testing their own work is:*

*a) Lack of technical documentation  
b) Lack of test tools on the market for developer’s  
c) Lack of Objectivity  
d) Lack of training*

*Ans: C*

13. In a review meeting a moderator is a person who:

a) Takes minutes of the meeting  
b) Takes telephone calls  
c) Mediates between people  
d) writes the documents to be reviewed

Ans: C

14. Acceptance test cases are based on what?

a) Decision table  
b) Design  
c) Code  
d) Requirements

Ans: D

15. *How much testing is enough?*

*a) This question is easy to answer  
b) This question is impossible to answer  
c) The answer depends on the risk for your industry, contract and special requirements  
d) This answer depends on the maturity of your developers*

Ans: C

16. which of the following is the component test standard?

a) IEEE 610  
b) IEEE 829  
c) BS7925-1  
d) BS7925-2

Ans: D

17. Which of the following is NOT a standard related to testing?

a) IEEE610  
b) IEEE829  
c) BS7925-1  
d) BS7925-2

Ans: A

18. The standard that gives definitions of testing terms is:

a) ISO/IEC 12207  
b) BS 7925-1  
c) ANSI/IEEE 729  
d) ANSI/IEEE 829

Ans: B

19. Which of the following is NOT true of incidents?

a) Incidents are raised when expected and actual results differ.  
b) Incidents may be raised against user requirements.  
c) Incidents require investigation and/or correction.  
d) Incident resolution is the responsibility of the author of the software under test.

Ans: D

20. *Which of the following is false?*

*a) In a system two different failures may have different severities.  
b) A fault need not affect the reliability of a system.  
c) A system is necessarily more reliable after debugging for the removal of a fault.  
d) Undetected errors may lead to faults and eventually to incorrect behavior.*

Ans: C

1. *Which of the following is the odd one out?*

*a) White box  
b) Functional  
c) Structural  
d) Glass box*

Ans: B

2. Which of the following is a static test?

a) Coverage analysis  
b) Code inspection  
c) Usability assessment  
d) Installation test

Ans: B

3. *Which of the following is a black box design technique?*

*a) statement testing  
b) error- guessing  
c) equivalence partitioning  
d) usability testing*

Ans: C

4. Which of the following is not the integration strategy?

a) Design based  
b) Bottom-up  
c) Big-bang  
d) Top-down

Ans: A

5. *Which of the following is NOT a reasonable test objective:*

*a) To find faults in the software  
b) To give confidence in the software  
c) To prove that the software has no faults  
d) To find performance problems*

Ans: C

6. *Which of the following uses Impact Analysis most?*

*a) Non-functional system testing  
b) Component testing  
c) User acceptance testing  
d) Maintenance testing*

Ans: D

7. *Expected results are:*

*a) Only important in system testing  
b) Most useful when specified in advance  
c) Only used in component testing  
d) Derived from the code*

Ans: B

8. What type of review requires formal entry and exit criteria, including metrics?

a) Management review  
b) Inspection  
c) Walkthrough  
d) Post project review

Ans: B

9. The difference between re-testing and regression testing is:

a) Re-testing ensures the original fault has been removed; regression  
testing looks for unexpected side-effects  
b) Re-testing looks for unexpected side-effects; regression testing  
ensures the original fault has been removed  
c) Re-testing is done by developers; regression testing is done by  
independent testers  
d) Re-testing is done after faults are fixed; regression testing is done  
earlier

Ans: A

10. Given the following types of tool, which tools would typically be used by developers, and which by an independent system test team?

i) static analysis  
ii) performance testing  
iii. test management  
iv) dynamic analysis

a) Developers would typically use i and iv; test team ii and iii  
b) Developers would typically use i and iii; test team ii and iv  
c) Developers would typically use i, iii and iv; test team ii  
d) Developers would typically use ii and iv; test team i and iii

Ans: A

11.*Functional system testing is:*

*a) Testing that the system functions with other systems  
b) Testing the end to end functionality of the system as a whole  
c) Testing that the components that comprise the system function  
together  
d) Testing the system performs functions within specified response  
times*

Ans: B

12. Which of the following items would not come under Configuration Management?

a) Operating systems  
b) Live data  
c) Test documentation  
d) User requirement documents

Ans: B

13. Incidents would not be raised against:

a) Requirements  
b) Documentation  
c) Improvements suggested by users  
d) Test cases

Ans: C

14. Maintenance testing is:

a) Testing to maintain business advantage  
b) Testing a released system that has been changed  
c) Testing by users to ensure that the system meets a business need  
d) Updating tests when the software has changed

Ans: B

15. Which of the following techniques is NOT a black box technique?

a) State transition testing  
b) Syntax testing  
c) LCSAJ  
d) Boundary value analysis

Ans: C

16. What can static analysis NOT find?

a) *Memory leaks  
b) Unreachable (“dead”) code  
c) The use of a variable before it has been defined  
d) Array bound violations*

Ans: A

17. Which of the following is likely to benefit most from the use of test tools providing test capture and replay facilities?

a) *Integration testing  
b) Regression testing  
c) System testing  
d) User acceptance testing*

Ans: B

18. Which of the following requirements is testable?

a) *The system shall be user friendly.  
b) The response time shall be less than one second for the specified  
design load.  
c) The safety-critical parts of the system shall contain 0 faults.  
d) The system shall be built to be portable.*

Ans: B

19.. *In prioritizing what to test, the most important objective is to:*

*a) Test high risk areas.  
b) Find as many faults as possible.  
c) Obtain good test coverage.  
d) Test whatever is easiest to test.*

Ans: A

20. Which of the following is false?

a) An incident can be raised against documentation.  
b) An incident occurs when expected and actual results differ.  
c) Incidents can be analysed to assist in test process improvement.  
d) Incidents should always be fixed.

Ans: D

**Q1) The order in which test levels are performed is:**

a) Unit, Integration, Acceptance, System  
b) Unit, System, Integration, Acceptance  
c) Unit, Integration, System, Acceptance  
d) It depends on the nature of a project

**Answer:d)**It depends on nature of a project.

Explanation: Test levels can always be reorganized or combined depending upon the nature of a project or system architecture.

**Q2) *System testing is a***

*a) Black box testing  
b) Grey box testing  
c) White box testing  
d) Both a and b*

**Answer:a)**Black box testing

### ****Q3) *What is “V” Model?*****

*a) Test Design Technique  
b) Test Type  
c) SDLC Model  
d) Test Level*

**Answer:**c) SDLC Model

### ****Q4) Test cases are designed during which of the following stages?****

a) Test recording  
b) Test configuration  
c) Test planning  
d) Test specification

**Answer:** d) Test specification

### ****Q5) Which is not the other name for structural testing?****

a) Behavioral testing  
b) Glass box testing  
c) White box testing  
d) None of the above

**Answer: a)**Behavioral testing

### ****Q6) The technique applied for usability testing is:****

a) White box  
b) Grey box  
c) Black box  
d) Combination of all

**Answer:c)**Black box

Explanation: Usability testing is done mostly by users. They are not familiar with internal structure of the system.

### ****Q7) Which of the following is not a Test Type?****

a) Database Testing  
b) Security Testing  
c) Statement Testing  
d) Functional Testing

**Answer:c)** Statement Testing

### ****Q8) Static analysis can be best described as:****

a) The reviewing of test plans  
b) The analysis of batch programs  
c) The use of black box testing  
d) The analysis of program code

**Answer: d)** The analysis of program code

### ****Q9) Exhaustive testing is:****

a) always possible  
b) impractical but possible  
c) practically possible  
d) impractical and impossible

**Answer: b)**impractical but possible

Explanation: Exhaustive testing is the testing where we execute single test case for multiple test data.

### ****Q10) Which is not a type of incremental testing approach?****

a) Bottom up  
b) Top down  
c) Big-bang  
d) Functional incrimination

**Answer:** c) Big-bang

### ****Q11) *White-box testing can be started:*****

*a) After installation  
b) After SRS creation  
c) After programming  
d) After designing*

***Answer: c)****After programming*

### *****Q12) What is Fault Masking?*****

*a) Creating a test case which does not reveal a fault  
b) Error condition hiding another error condition  
c) Masking a fault by developer  
d) Masking a fault by a tester*

***Answer: b)****Error condition hiding another error condition*

### ****Q13)**** ****Which of the following is the component test standard?****

a) BS7925-2  
b) IEEE 829  
c) BS7925-1  
d) IEEE 610

**Answer: a)**BS7925-2

### ****Q14) Testing of software with actual data and in actual environment is known as?****

a) Regression testing  
b) Beta testing  
c) Alpha testing  
d) None of the above

**Answer: b)** Beta testing

### ****Q15) Beta Testing is done at:****

a) Developer’s end  
b) User’s end  
c) User’s & Developer’s end  
d) None of the mentioned

**Answer: b)** User’s end

Explanation: In Beta Testing, the user evaluates the product and gives feedback.

### ****Q16) *A program with high cyclometic complexity is likely to be:*****

*a) Large  
b) Small  
c) Difficult to write  
d) Difficult to test*

***Answer: d)****Difficult to test*

### *****Q17) Unit testing is done by:*****

*a) Users  
b) Developers  
c) Customers  
d) None of the mentioned*

***Answer: b)****Developers*

Explanation: Unit testing is a method by which individual units of source code, sets of one or more computer program modules together with associated control data, operating procedures and usage procedures are tested to identify if they are fit for use or not.

### ****Q18) Which of the following is not a**** ****Software Development Life Cycle Phase?****

a) Requirements Gathering  
b) Test Closure  
c) Coding  
d) Testing

**Answer: b)** Test Closure

### ****Q19) In order to control cost, defects should ideally be detected in which phase:****

a) Coding  
b) Design  
c) Implementation  
d) Requirements Gathering

**Answer: d)** Requirements gathering

### ****Q20) Error guessing is a:****

a) Test verification techniques  
b) Test data management techniques  
c) Test control management techniques  
d) Test execution techniques

**Answer: b)** Test data management techniques

### ****Q21) Which of the following is not a white box technique?****

a) State transition testing  
b) Path testing  
c) Statement testing  
d) Data flow testing

**Answer: a)** State transition testing

### ****Q22) Alpha testing is:****

a) Post-release testing by end user representatives at the developer’s site  
b) The first testing that is performed  
c) Pre-release testing by end user representatives at their sites  
d) Pre-release testing by end user representatives at the developer’s site

**Answer: d)** Pre-release testing by end user representatives at the developer’s site.

**Q. Requirement Engineering is not concern with \_\_\_\_\_\_\_\_\_\_\_\_.**

**a.** Requirement Design

**b.** Requirement Elicitation

**c.** Requirement Analysis

**d.** Requirement Documentation

Ans: A

**2)   When an expected result is not specified in test case template then \_\_\_\_\_\_\_\_\_\_\_.**

**a.** We cannot run the test.

**b.** It may be difficult to repeat the test.

**c.** It may be difficult to determine if the test has passed or failed.

**d.** We cannot automate the user inputs.

Ans: C

**3)   A test technique that involves testing with various ranges of valid and invalid inputs of a particular module or component functionality extensively is \_\_\_\_\_\_\_\_\_\_\_.**

**a.** Gorilla Testing

**b.** Monkey Testing

**c.** Agile Testing

**d.** Baseline Testing

Ans: A

**4)   End result of Software Requirement Analysis is \_\_\_\_\_\_\_\_.**

**a.** Functional and Behavioral

**b.** Architectural and Structural

**c.** Usability and Reliability

**d.** Algorithmic and Data Structure

Ans: A

**6)   Which Testing is performed first?**

**a.** Black box testing

**b.** White box testing

**c.** Dynamic testing

**d.** Static testing

Ans: D

**7)   Verification and Validation uses \_\_\_\_\_\_\_\_\_\_.**

**a.** Internal and External resources respectively.

**b.** Internal resources only.

**c.** External resources only.

**d.** External and Internal resources respectivel

Ans: A

**8)   Testing beyond normal operational capacity is \_\_\_\_\_\_\_\_\_\_.**

**a.** Load testing

**b.** Performance testing

**c.** Stress testing

**d.** All of these.

Ans: C

**9)   The expected results of the software is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

**a.** Only important in system testing

**b.** Only used in component testing

**c.** Most useful when specified in advance

**d.** Derived from the code

Ans: A