

# Software Engineering

## Multiple Choice Questions and Answers :-

1. Identify, from among the following, the correct statement.

- (a) One of the main challenges Software Engineering facing today is the requirement of most software systems to work with a multitude of homogenous systems
- (b) 'Legacy systems' are custom developed software systems for the legal domain
- (c) Software does not wear-out in the traditional sense of the term, but software does tend to deteriorate as it evolves
- (d) Since software is essentially 'intangible' it is relatively easy to manage software projects
- (e) With the advent of component based software assembly, we find that only less than 20% of today's software is still custom built.

Answer : C

Reason: Remaining all are contradictory.

2. Software Engineering:

- (a) Is a set of rules about developing software products
- (b) Has been around as a discipline since the early 50's
- (c) Started as a response to the so-called 'Software Crisis' of the late 90's
- (d) Is an engineering discipline concerned with all the aspects of software production
- (e) Is now a mature discipline on par with other established engineering fields.

Answer : (d)

Reason: Software crisis of the late 60's .

3. Read the following paragraph and identify the correct statement.

“Imagine that you were recently hired as a software engineer to a company that specializes in aircraft navigation control software. While orientating yourselves to the company’s work practices, you observe that they in fact do not conduct a few tests that they should in order to comply with the relevant safety standard. When you inquire about this from the project manager, he dismisses it saying that those tests are really unnecessary (and takes an unreasonably long time to conduct, as well as being superfluous) and that they have managed with the other tests for so long, without any problems.”

- (a) You should immediately resign from the company and file a complaint with the relevant standard institution
- (b) You should do nothing and let the matter slide
- (c) Although you are new to the company, and you hardly know anything about the internal processes and politics, you should insist on the company changing its work practices immediately, failing which you threaten to report the matter
- (d) Since you are new to the company, and you are unfamiliar with the internal processes and politics, you should first find-out more about the issue and its background
- (e) None of the above statements are correct.

Answer : (d)

Reason: D is the appropriate choice.

4. With regard to Evolutionary development, identify the correct statement.

- (a) Evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping
- (b) Very large projects are natural candidates for an evolutionary development based approach
- (c) Exploratory development is used in situations where most of the requirements are well understood in advance
- (d) One of the strong points of evolutionary development is that it facilitates easy project management, through the high volume of documentation it generates
- (e) Often the construction of a throw-away prototype is not followed by a reimplementing of the system using a more structured approach.

Answer : (a)

Reason: Evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping is the correct statement with respect to Evolutionary development.

5.What is the fundamental reason that software cannot be considered to be engineered?

- (a) It is designed by humans and therefore flawed
- (b) Software engineering (as opposed to other forms of engineering, such as Civil) is an art – not a science
- (c) The discipline is relatively new, say in comparison to bridge building that is an activity that has millennia of practice
- (d) None of these are true. Software Engineering is a truly rigorous discipline
- (e) The complexity of systems and their interaction continues faster than we can understand it.

Answer : (e)

Reason: The fundamental reason that software can not be considered to be engineered is the complexity of systems and their interaction continues faster than we can understand it.

6.The software life cycle can be said to consist of a series of phases. The classical model is referred to as the waterfall model. Which phase may be defined as “The concept is explored and refined, and the client’s requirements are elicited?”

- (a) Requirements
- (b) Specification
- (c) Design
- (d) Implementation
- (e) Integration.

Answer : (a)

Reason: In the requirements phase the concept is explored and refined and the clients requirements are elicited.

7.The individual or organisation who wants a product to be developed is known as the:

- (a) Developer
- (b) User
- (c) Contractor
- (d) Initiator
- (e) Client.

Answer : (e)

Reason: The individual or organisation who wants a product to be developed is known as the client.

8.Which of the following items should not be included in the software project management plan?

- (a) The techniques and case tools to be used
- (b) Detailed schedules, budgets and resource allocations
- (c) The life cycle model to be used
- (d) The organisational structure of the development organisation, project responsibilities, managerial objectives and priorities
- (e) None of the above.

Answer : (e)

Reason: The software project management plan should include: the life cycle model to be used, the organisational structure of the development organisation, project responsibilities, managerial objectives and priorities, the life cycle model to be used, detailed schedules, budgets and resource allocations.

9.The final form of testing COTS software is \_\_\_\_\_ testing.

- (a) Unit
- (b) Integration
- (c) Alpha
- (d) Module
- (e) Beta.

Answer : (e)

Reason: Beta testing occurs when a commercial form of the software is released to selected clients.

10. In the maintenance phase the product must be tested against previous test cases. This is known as \_\_\_\_\_ testing.

- (a) Unit
- (b) Integration
- (c) Regression
- (d) Module
- (e) Beta.

Answer : ©

Reason: Regression testing occurs when the product is tested against previous test cases. This most frequently occurs in the maintenance phase.

11. Which property of the rapid prototype is not important?

- (a) The speed with which it can be developed
- (b) The speed with which it can be modified
- (c) Its ability to determine the client's real needs
- (d) The insights that the design team can gain from it, even if they are of the 'how not to do it' variety
- (e) Its internal structure.

Answer : (c)

Reason: The sole use of the rapid prototype is to determine what the client's real needs are as rapidly as possible. The rapid prototype is then effectively discarded so its internal structure is not relevant.

12. An example of the risk involved in software development is

- (a) Key personnel may resign before the product is complete
- (b) The manufacturer of critical components (e.g. the hardware associated with a real-time system) may go bankrupt
- (c) Technology changes may render the product obsolete
- (d) Competitors may market a fully functional lower-cost equivalent package
- (e) All of these are risks involved in software development.

Answer : (e)

Reason: There are many risks involved in software development.

13.A simple way of looking at the spiral software life-cycle model is as a waterfall model with each phase proceeded by

- (a) Build-and-fix
- (b) Freezing
- (c) Synchronization
- (d) Testing
- (e) Risk analysis.

Answer : (e)

Reason: A simple way of looking at the spiral software life-cycle model is as a waterfall model with each phase proceeded by risk analysis.

14.The degree of interaction between two modules is known as

- (a) Cohesion
- (b) Strength
- (c) Inheritance
- (d) Coupling
- (e) Instantiation.

Answer : (d)

Reason: The degree of interaction between two modules is known as coupling.

15.The relationship between a derived class (or subclass) and base class is referred to as

- (a) Association
- (b) Inheritance
- (c) Polymorphism
- (d) Instantiation
- (e) Aggregation.

Answer : (b)

Reason: A derived class inherits all the attributes of a base class.

16.Myers (1978) identifies seven levels of cohesion. Which level of cohesion may be defined as followed; “the output from one element in the component serves as input for some other element”?

- (a) Communicational cohesion
- (b) Functional cohesion
- (c) Communicational cohesion
- (d) Temporal cohesion
- (e) None of these.

Answer : (a)

Reason: In communicational cohesion the output from one element in the component serves as input for some other element.

17.A design is said to be a good design if the components are

- (a) Strongly coupled
- (b) Weakly cohesive
- (c) Strongly coupled and Weakly cohesive
- (d) Strongly coupled and strongly cohesive
- (e) Strongly cohesive and weakly coupled.

Answer : (e)

Reason: You should aim to maximize the interaction within a module and minimize the interaction between modules.

18.If a control switch is passed as an argument this is an example of \_\_\_\_\_ coupling.

- (a) Content
- (b) Common
- (c) Control
- (d) Stamp
- (e) Data.

Answer : (c)

Reason: Two modules are control coupled if one passes an element of control to another.

19.Which of the following is a type of abstraction?

- (a) Data
- (b) Procedural
- (c) Iteration
- (d) All of the above
- (e) None of the above.



Answer : (d)

Reason: The three types of abstraction (data, procedural and iteration) are all instances of the more general concept of information hiding.

20. In the classical chief programmer team approach, the team member responsible for maintaining the detailed design and coding is

- (a) The chief programmer
- (b) The programming secretary
- (c) A specialized function that exists outside 'the team'
- (d) The individual coder (i.e. programmer)
- (e) The back-up programmer.

Answer : (d)

Reason: In the classical chief programmer team approach, the team member responsible for maintaining the detailed design and coding is the individual coder (i.e. programmer).

21. Internal costs include

- (a) Developers salaries
- (b) Managers and support personnel salaries
- (c) The cost of overheads such as utilities, rent and senior managers
- (d) Materials (such as manuals) and services such as travel
- (e) All of the above.

Answer : (a)

Reason: Internal costs comprise all the costs to the developers.

22. Problems with using Lines of Code to measure the size of a product include(s)

- (a) The creation of source code is only part of the development effort
- (b) The Lines of Code (LOC) will differ between languages and cannot be measured for some languages
- (c) Should comments, data definitions etc (i.e. non-executable LOC) be included as well?
- (d) The final size (kLOC) can only be determined once the product is delivered
- (e) All of the above.

Answer : (e)

Reason: There are many problems with using Lines of Code to measure the size of a product.

23. Software Science bases its estimation of the size of a product on

- (a) Files (Fi), Flows (Fi) and Processes (Pr)
- (b) Lines of Code (kLOC)
- (c) Function Points (FP)
- (d) operands and operators
- (e) Feature Points (FeP).

Answer : (d)

Reason: Software Science bases its estimation of the size of a product on the number of operands and operators.

24. In Intermediate COCOMO the mode that represents complex products is referred to as

- (a) Embedded
- (b) Semidetached
- (c) Organic
- (d) Multiplicative
- (e) Monolithic.

Answer : (a)

Reason: In Intermediate COCOMO there are three modes: organic, semidetached and imbedded.

25. Work that continues throughout the project and does not relate to any specific phase of software development is termed a(n)

- (a) Milestone
- (b) Project function
- (c) Activity
- (d) Task
- (e) Baseline.

Answer : (b)

Reason: Work that continues throughout the project and does not relate to any specific phase of software development is termed a project function.

26. The advantage of following the IEEE Standard for drawing up a Software Project Management Plan (SPMP) – see IEEE Standard 1059.1 1987 – is

- (a) It is drawn up by representatives from major software development organisations
- (b) It is designed for all types of software products
- (c) It is a framework that can be used irrespective of process model or specific techniques
- (d) It can be tailored for each organisation for a particular application area, development team or technique.
- (e) All of the above.

Answer : (e)

Reason: There are many advantages of using a standard.

27.The best way to test the Software Project Management Plan (SPMP) is by

- (a) Prototyping
- (b) Inspection
- (c) Simulation
- (d) Compilation
- (e) Debugging.

Answer : (b)

Reason: The best way to test the Software Project Management Plan (SPMP) is by a plan inspection by the SQA team. In order to further reduce risk the duration and cost estimates should further be independently computed by people other than the original project team.

28.Algorithmic cost estimation in different organisations may be different for the same application development, because

- (a) Different organisations consider complexity factors differently
- (b) Different organisations may use different programming languages
- (c) Developers' skills may vary
- (d) Techniques for the measurement of productivity may vary
- (e) All of the above may be true.

Answer : (e)

Reason: Cost estimation incorporates a number of factors.

29.The aim of software engineering is to produce software that is

- (a) Fault-free
- (b) Delivered on time
- (c) Delivered within budget

- (d) Satisfies users' needs
- (e) All of these are the aims of software engineering.

Answer : (e)

Reason: The aim of software engineering is to produce software that is fault-free, delivered on time, delivered within budget, and satisfies users' needs.

30.Object-oriented concepts are not new. The first OO language was considered to be

- (a) ALGOL-68
- (b) FORTRAN 77
- (c) C
- (d) MODULA
- (e) SIMULA 67.

Answer : (e)

Reason: The first OO language was considered to be SIMULA 67.

31.Software engineering is the systematic approach to the

- (a)Development of software
- (b)Operation of software
- (c)Maintenance of software
- (d)Retirement of software
- (e)All of the above.

Answer : (e)

Reason: Software engineering is the systematic approach to the development of software , operation of software , maintenance of software and retirement of software .

32. Brooks' view of the essence of software included

- (a) People, Quality, Process and Productivity
- (b) Performance, Robustness, Maintainability and Reusability
- (c) Complexity, Conformity, Changeability and Invisibility
- (d) Efficiency, Reliability, Usability and Robustness
- (e) Accuracy, Testability, Visibility and Changeability.

Answer : (c)

Reason: Brooks' view of the essence of software included Complexity, conformity, changeability & invisibility.

33. What is the essence of software engineering?

- (a) Requirements Definition, Design Representation, Knowledge Capture and Quality Factors
- (b) Maintaining Configurations, Organizing Teams, Channeling Creativity and Planning Resource Use
- (c) Time/Space Tradeoffs, Optimizing Process, Minimizing Communication and Problem Decomposition
- (d) Managing Complexity, Managing Personnel Resources, Managing Time and Money and Producing Useful Products
- (e) Maintaining Communication, Managing unuseful products and Not optimizing process.

Answer : (d)

Reason: The essence of software engineering is managing complexity, personnel resources, time and money and producing useful products.

34. Which of the following is a life-cycle concern?

- (a) Testing
- (b) Portability

- (c) Programming
- (d) Planning
- (e) All of the above.

Answer : (d)

Reason: Planning is life-cycle concern.

35. Which best captures the nature of the quality paradigm?

- (a) The Nature of Quality, A Process Perspective, Defect Elimination
- (b) Process, Product, People, Problem
- (c) Measurement, Quality Control, Validation
- (d) Feasibility, Requirements, Economics, Customer's Needs
- (e) Analysis, Testing, Design.

Answer : (a)

Reason: Process perspective and defect elimination best captures the quality paradigm.

36. Prototyping is appropriate for

- (a) Data-oriented applications
- (b) Applications with emphasis on the user interface
- (c) Applications which are highly interactive
- (d) Development teams who lack domain experience
- (e) All of the above.

Answer : (e)

Reason: Prototyping seems appropriate for Data-oriented applications, Applications with emphasis on the user interface, Applications which are highly interactive and Development teams who lack domain experience

37.What are the major activities of the spiral model of software engineering?

- (a)Planning, Risk Analysis, Engineering, Customer Evaluation
- (b)Defining, Prototyping, Testing, Delivery
- (c)Requirements
- (d)Quick Design, Build Prototype, Evaluate Prototype, Refine Prototype
- (e)Testing.

Answer : (a)

Reason: Planning , risk analysis ,engineering and customer evaluation are the important four major activities of the spiral model.

38.In choosing a development life-cycle model, one would consider the

- (a)Development Group Expertise, Problem Characteristics, User Expectations
- (b)Languages, Development Schedule, Competition
- (c)System Context, User Population, Platforms
- (d)Organizational Structure, User Tasks, Performance Criteria
- (e)System Analysis, User interface, Testing.

Answer : (a)

Reason: Choice A is the apt among all the answers for choosing a development life cycle model.

39.What are the factors to be considered when planning a software development effort?

- (a)Performance, Problem, Product, Planning



- (b) People, Problem, Product, Process
- (c) People, Problem, Productivity, Performance
- (d) People, Problem, Product, Portability
- (e) Productivity, Programming, Performance, Pay-Off.

Answer : (b)

Reason: People, Problem, Product & Process factors are considered when planning a software development effort.

40. Which of the following could be a deliverable for a software system?

- (a) Source Code
- (b) Reference Manual
- (c) Requirements Document
- (d) User's Guide
- (e) All of the above.

Answer : (e)

Reason: Source code, reference manual, requirements document and user's guide are the deliverables for a software system.

41. Which of the following is not viewed as a primary mover in improving the software process?

- (a) Increased Effectiveness
- (b) Better Product Quality
- (c) Improved Staff Satisfaction
- (d) Reduced Costs
- (e) Tighter managerial control.

Answer : (e)

Reason: Tight managerial control is not viewed as a primary mover in improving the software process

42. Symptoms of the software crisis would include

- (a) Software delivered behind schedule
- (b) Software exceeding cost estimate
- (c) Unreliable
- (d) Difficult to maintain
- (e) All of the above.

Answer : (e)

Reason: When software delivered behind schedule, software exceeding cost estimate, unreliable and difficult to maintain then it is said that software crisis.

43. Which of the following projects would be a good one for adopting the prototyping paradigm for software development?

- (a) Accounting System
- (b) Spreadsheet
- (c) Automobile Cruise Control
- (d) Telephone Switching System
- (e) Algebra Tutor.

Answer : (e)

Reason: Algebra Tutor would be a good candidate for adopting the prototyping paradigm.

44. Views of quality software would not include

- (a)Optimizing price and performance
- (b)Minimizing the execution errors
- (c)Conformance to specification
- (d)Establishing valid requirements
- (e)Maximizing errors.

Answer : (b)

Reason: minimizing the execution errors would not included in views of quality software.

45. Software configuration activities would not include

- (a)Identify change
- (b)Control change
- (c)Ensure improper implementation of change
- (d)Report change to interested parties
- (e)All of the above.

Answer : (c)

Reason: Software configuration activities would include proper implementation of change.

46. In planning a software project one would

- (a)Find ways to produce results using limited resources
- (b)Pad the schedule to accommodate errors
- (c)Overestimate the budget
- (d)Structure the team to prevent administrative interference
- (e)All of the above.

Answer : (a)

Reason: In planning a software project I would find ways to produce results using limited resources

47.A systematic approach to software development, as epitomized by the various life-cycle models, is useful in

- (a)Helping us understand the nature of the software product
- (b)Convincing the customer that we know what we are doing
- (c)Filling texts on software engineering
- (d)Managing the various activities necessary to get the job done
- (e)Testing the entire project

Answer : (d)

Reason: A systematic approach to software development, as epitomized by the various life-cycle models, is useful in managing the various activities necessary to get the job done.

48.A process view in software engineering would consider which of the following

- (a)Product performance
- (b)Staffing
- (c)Functionality
- (d)Reliability
- (e)Usability.

Answer : (b)

Reason: Staffing is the apt choice among the given

49.Software measurement is useful to

- (a)Indicate quality of the product
- (b)Track progress

- (c) Assess productivity
- (d) Form a baseline for estimation and prediction
- (e) All of the above.

Answer : (e)

Reason: Software measurement is useful to , indicate quality of the product , track progress , assess productivity and form a baseline for estimation and prediction.

50. Which of the following is not a 'concern' during the management of a software project?

- (a) Money
- (b) Time
- (c) Product quality
- (d) Project/product information
- (e) Product quantity.

Answer : (e)

Reason: Product quantity would not include during the management of a software project.

51. What would be investigated during Requirements analysis?

- (a) System performance , Test Scheduling, Organizational Structure
- (b) Languages , Platforms, Competition
- (c) System Context , User Populations, User Tasks
- (d) Verification, Formal Methods, Accuracy
- (e) Validation, Informal methods, Inaccuracy.

Answer : (c)

Reason: C is the right choice.

52.Which of the following is not a description of planning?

- (a)Planning is used to find credible ways to produce results with limited resources and limited schedule flexibility
- (b)Planning is finding new personnel resources to support labor intensive development
- (c)Planning is identifying and accommodating the unforeseen
- (d)Planning is blending the efforts of many people to produce a product that satisfies the customer's need
- (e)Planning is negotiating compromises in completion dates and resource allocation.

Answer : (b)

Reason: Planning is finding new personnel resources to support labor intensive development is not descriptive of planning

53.The information we need to capture during requirements analysis not include

- (a)Hiring Authority
- (b)Communication Paths
- (c)Synchronization
- (d)Temporal Dependencies
- (e)Data Aggregation.

Answer : (a)

Reason: The information we need to capture during requirements analysis would probably not include hiring Authority .

54.What do you call when two modules are coupled, when they communicate via a composite data item?

- (a)Content coupling
- (b)Common coupling
- (c)Control coupling
- (d)Data coupling
- (e)Stamp coupling.

Answer : (e)

Reason: Stamp coupling is that when two modules are coupled if they communicate via composite data item.

55.Which among the following measures how strongly the elements within a module are related?

- (a)Coupling
- (b)Cohesion
- (c)Aggregation
- (d)Inheritance
- (e)Abstraction.

Answer : (b)

Reason: Cohesion measures how strongly the elements within a module are related.

56.What do you call, when the elements of a module, all operate on the same data?

- (a)Functional cohesion
- (b)Temporal cohesion
- (c)Procedural cohesion
- (d)Communicational cohesion
- (e)Coincidental cohesion.

Answer : (d)

Reason: when the elements of a module all operate on the same data we call it as a communicational cohesion.

57. Which tests are designed to confront the program with abnormal situations?

- (a) Recovery testing
- (b) Security testing
- (c) Stress testing
- (d) Performance testing
- (e) Usage testing.

Answer : (c)

Reason: Stress testing is to confront the program with abnormal situations.

58. To which software category does Knowledge based system belongs?

- (a) System software
- (b) Real time software
- (c) Embedded software
- (d) Personnel software
- (e) Artificial Intelligent software.

Answer : (e)

Reason: Artificial Intelligent software belongs to knowledge based system.

59. Which is not involved in software development process?

- (a) People



- (b) Problem
- (c) Practice
- (d) Process
- (e) Product.

Answer : (c)

Reason: practice is not involved in software development process.

60. Which of the following are direct measures?

- I. Size.
- II. Effort.
- III. Schedule.
- IV. Quality.

- (a) Both (I) and (II) above
- (b) Both (I) and (III) above
- (c) Both (I) and (IV) above
- (d) Both (II) and (III) above
- (e) All (I), (II), (III) and (IV) above.

Answer : (e)

Reason: size, effort, schedule and quality are the direct measures.

61. How does a software project manager need to act to minimize the risk of software failure?

- (a) Double the project team size
- (b) Request a large budget
- (c) Form a small software team

(d)Track progress

(e)Request for more period of time.

Answer : (d)

Reason : a software project manager need to act to minimize the risk of software failure by Tracking the progress of software

62.To be an effective aid in process improvement the baseline metrics used must be

(a)Based on reasonable estimates from failed projects

(b)Measured consistently across projects

(c)Drawn from large projects only

(d)Based only on successful projects

(e)Drawn from failed projects.

Answer : (b)

Reason : To be an effective aid in process improvement the baseline metrics used must be Measured consistently across projects

63.Empirical estimation models are typically based on

(a)Expert judgment based on past project experiences

(b)Refinement of current project estimation

(c)Regression models derived from historical project data

(d)Trial and error determination of the parameters and coefficients

(e)Estimation of present data.

Answer : (c)

Reason : Empirical estimation models are typically based on Regression models derived from historical project data.

64.Which of the following is not the guiding principle of software project scheduling?

- (a)Compartmentalization
- (b)Market assessment
- (c)Time allocation
- (d)Effort validation
- (e)Interdependency.

Answer : (b)

Reason : Market Assessment is not one of the guiding principles of software project scheduling:

65.The tools for computing critical path and project completion times from activity networks is/are

- I. CPM.
- II. DRE.
- III. FP.
- IV. PERT.

- (a)Both (I) and (III) above
- (b)Both (I) and (IV) above
- (c)Both (II) and (IV) above
- (d)Both (II) and (III) above
- (e)All (I), (II), (III) and (IV) above.

Answer : (b)

Reason : Two tools for computing critical path and project completion times from activity networks are CPM &PERT

66.The purpose of earned value analysis is to

- (a)Determine how to compensate developers based on their productivity
- (b)Provide a quantitative means of assessing software project progress
- (c)Provide a qualitative means of assessing software project progress
- (d)Set the price point for a software product based on development effort
- (e)Provide qualitative and quantitative measure of assesing software project progress.

Answer : (b)

Reason : The purpose of earned value analysis is to Provide a quantitative means of assessing software project progress

67.The rapid application development model is

- (a)Same as component-based development
- (b)A useful approach when a customer cannot define requirements clearly
- (c)A high-speed adaptation of the linear sequential model
- (d)Same as incremental model
- (e)Same as water fall model.

Answer : (c)

Reason : The rapid application development model is A high-speed adaptation of the linear sequential model.

68.Which of the following is not an objective for building analysis models?

- (a)Define set of software requirements that can be validated
- (b)Describe customer requirements
- (c)Develop a solution for the problem

- (d) Establish basis for software design
- (e) Define set of software requirements that can be verified.

Answer : (c)

Reason : Develop a solution for the problem is not an objective for building analysis models?

69. The entity relationship diagram

- (a) Depicts relationships between data objects
- (b) Depicts functions that transform the data flow
- (c) Indicates how data are transformed by the system
- (d) Indicates system reactions to external events
- (e) Depicts the physical design of the data.

Answer : (a)

Reason : The entity relationship diagram depicts relationships between data objects

70. Which of the following is not an area of concern in the design model?

- (a) Architecture
- (b) Data design
- (c) Interfaces design
- (d) Project scope
- (e) Modular design.

Answer : (d)

Reason : Project Scope is not an area of concern in the design model

71. Coupling is a qualitative indication of the degree to which a module

- (a) Can be written more compactly
- (b) Focuses on just one thing
- (c) Is able to complete its function in a timely manner
- (d) Is connected to other modules
- (e) Is able to complete its logic in a timely manner.

Answer : (d)

Reason : Coupling is a qualitative indication of the degree to which a module is connected to other modules.

72. Which of the following interface design principles reduces the user's memory load?

- I. Define intuitive shortcuts
- II. Disclose information in a progressive fashion
- III. Establish meaningful defaults
- IV. Provide an on-line tutorial

- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above
- (d) (I), (II) and (III) above
- (e) All (I), (II), (III) and (IV) above.

Answer : (d)

Reason : The following Define intuitive shortcuts, Disclose information in a progressive fashion, Establish meaningful defaults interface design principles reduces the user's memory load

73. Black box testing is also called

- (a) Specification-based testing
- (b) Structural testing
- (c) Verification
- (d) Unit testing
- (e) Stress testing.

Answer : (a)

Reason : Black box testing is another name for Specification-based testing.

74. Which configuration objects would not typically be found in the project database?

- (a) Design specification
- (b) Marketing data
- (c) Executable code
- (d) Test plans
- (e) Test procedures.

Answer : (b)

Reason : Marketing data configuration objects would not typically be found in the project database

75. Which of the following task(s) is/are not part of software configuration management?

- I. Change control.
- II. Reporting.
- III. Statistical quality control.

- (a) Only (I) above
- (b) Only (II) above
- (c) Only (III) above

- (d)Both (I) and (II) above
- (e)Both (I) and (III) above.

Answer : (c)

Reason : the following task Statistical quality control is not part of software configuration management

76.Which box specification is not associated with cleanroom approach?

- (a)Black box
- (b)Clear box
- (c)State box
- (d)White box
- (e)Silver box.

Answer : (d)

Reason : White box specification is not associated with cleanroom approach

77.Which of the following is not a logical layer of the application in client server system?

- (a)Presentation layer
- (b)Application layer
- (c)Data Management layer
- (d)Programming layer
- (e)Business layer.

Answer : (d)

Reason : Programming is not a logical layer of the application in client server system

78.Which of the following is true for a thin-client?



- (a)Processes application logic
- (b)Performs data management task
- (c)Places heavy processing load on the server
- (d)Makes use of processing power of the client
- (e)Places heavy processing load on the client.

Answer : (c)

Reason : Places heavy processing load on the server

79.Traditionally, the phase of software development where a formal approach used is

- (a)Programming
- (b)Design
- (c)Requirements
- (d)Planning
- (e)Testing.

Answer : (a)

Reason : Traditionally, the only phase of software development where a formal approach is used is Programming.

80.Domain Engineering in CBSE is to

- (a)Identification of components
- (b)Catalogue reusable components
- (c)Domain modeling
- (d)Structural modeling
- (e)All the above.

Answer : (e)

Reason : Domain Engineering in CBSE is toldentification of components,Catalogue reusable components,Domain modeling, Structural modeling.

81.Build & Fix Model is suitable for programming exercises of \_\_\_\_\_ LOC (Line of Code).

- a) 100-200
- b) 200-400
- c) 400-1000
- d) above 1000

Answer : (a)

Reason : Build & Fix Model is suitable for small projects & programming exercises of 100 or 200 lines.

82.Which one of the following models is not suitable for accommodating any change?

- a) Build & Fix Model
- b) Prototyping Model
- c) RAD Model
- d) Waterfall Model

Answer : (d)

Reason : Real projects rarely follow the sequential flow that the Waterfall Model proposes

83.Which is not one of the types of prototype of Prototyping Model?

- a) Horizontal Prototype
- b) Vertical Prototype
- c) Diagonal Prototype
- d) Domain Prototype

Answer : (c)

Reason : There is no such thing as Diagonal Prototype whereas other options have their respective definitions

84. Which one of the following is not a phase of Prototyping Model?

- a) Quick Design
- b) Coding
- c) Prototype Refinement
- d) Engineer Product

Answer : (b)

Reason : A prototyping model generates only a working model of a system

85. Which of the following statements regarding Build & Fix Model is wrong?

- a) No room for structured design
- b) Code soon becomes unfix-able & unchangeable
- c) Maintenance is practically not possible
- d) It scales up well to large projects

Answer : (d)

Reason : Build & Fix Model is suitable for 100-200 LOC

86. RAD Model has

- a) 2 phases
- b) 3 phase
- c) 5 phases
- d) 6 phases

Answer : (c)

Reason : RAD Model consists of five phases namely: Business modeling, Data modeling, Process modeling, Application generation and Testing & Turnover.

87. What is the major drawback of using RAD Model?

- a) Highly specialized & skilled developers/designers are required.
- b) Increases re-usability of components.
- c) Encourages customer/client feedback.
- d) Both a & c.

Answer : (d)

Reason : The client may create an unrealistic product vision leading a team to over or under-develop functionality. Also, the specialized & skilled developers are not easily available.

88. Which of these are not among the eight principles followed by Software Engineering Code of Ethics and Professional Practice ?

- a) PUBLIC
- b) PROFESSION
- c) PRODUCT
- d) ENVIRONMENT

Answer : (d)

Reason : rest all are clauses for software ethics, environment does not focus on specific clause nor its of importance related to question

89.What is a Software ?

- a) Software is set of programs.
- b) Software is documentation and configuration of data.
- c) Both a and b
- d) None of the mentioned

Answer : (c)

Reason : Software is not just set of program but it is also associated documentation and configuration of data to make program run.

90.Which of these does not account for software failure ?

- a) Increasing Demand
- b) Low expectation
- c) Increasing Supply
- d) Less reliable and expensive.

Answer : (c)

Reason : Increasing supply will lead to more production and not failure.

91.What are attributes of good software ?

- a) Software maintainability.

- b) Software functionality.
- c) Software development.
- d) a and b.
- e) a,b and c.

Answer : (d)

Reason : Good software should deliver the required functionality, maintainability. Software development is not an attribute but a fundamental

92.Which of these software engineering activities are not a part of software processes ?

- a) Software dependence.
- b) Software development.
- c) Software validation.
- d) Software specification.

Answer : (a)

Reason : Software dependence is an attribute and not an engineering activity for process

93.Which of these is incorrect ?

- a) Software engineering belongs to Computer science.
- b) Software engineering is a part of more general form of System Engineering.
- c) Computer science belongs to Software engineering.
- d) Software engineering is concerned with the practicalities of developing and delivering useful software.

Answer : (c)

Reason : Software engineering is a vast sub domain which comes under computer science which is main domain

94. Which of these does not affect different types of software as a whole?

- a) Heterogeneity
- b) Flexibility
- c) Business and social change
- d) Security

Answer : (b)

Reason : Option b & c are a part of Software Engineering as a subject, hence option a covers them both.

94. The fundamental notions of software engineering does not account for ?

- a) Software processes
- b) Software Security
- c) Software reuse
- d) Software Validation

Answer : (d)

Reason : Software validation is an activity for software process and not the fundamental for engineering.

95. Which of these is not true ?

- a) Web has led to availability of software services and possibility of developing highly distributed service based systems.
- b) Web based systems have led to degradation of programming languages.
- c) Web brings concept of software as service.
- d) Web based system should be developed and delivered incrementally.

Answer : (b)

Reason : Web based systems has led to important advances in programming languages

96. Identify the correct statement: "Software engineers shall

- a) act in a manner that is in the best interests of his expertise and favour."
- b) act consistently with the public interest."
- c) ensure that their products only meet the SRS."
- d) none

Answer : (b)

Reason : Software engineers shall act in a manner that is in the best interests of their client and employer consistent with the public interest and shall ensure that their products and related modifications meet the highest professional standards possible. Thus options a & c are ruled out

97. Efficiency in a software product does not include \_\_\_\_\_

- a) responsiveness
- b) licensing
- c) memory utilization
- d) processing time

Answer : (b)

Reason : Licensing of a software product comes under corporate part of the software company.

98. The reason for software bugs and failures is due to

- a) Software companies
- b) Software Developers



c) Both a and b

Answer:c

Reason : Software companies are responsible for making policies and providing working atmosphere for the software development, so in turn these companies become a part of software development process. Bugs from developers side is no new thing. Thus option c answers the question.

99. Company has latest computers and state-of-the-art software tools, so we shouldn't worry about the quality of the product.

a) True

b) False

Answer : (b)

Reason : The infrastructure is only one of the several factors that determine the quality of the product.

100. Which one of the following is not a step of requirement engineering?

a) elicitation

b) design

c) analysis

d) documentation

Answer : (b)

Reason : Requirement Elicitation, Requirement Analysis, Requirement Documentation and Requirement Review are the four crucial process steps of requirement engineering. Design is in itself a different phase of Software Engineering