Software Engineering Questions and Answers

1. Software is defined as _____
a) set of programs, documentation & configuration of data
b) set of programs
c) documentation and configuration of data
d) None of the mentioned

Answer: a
Explanation: Software is a collection of programmes; it also includes documentation and data setup to enable the programmes to function. Microsoft windows, excel, word, powerpoint, etc. are a few examples of software.

2. What is Software Engineering?
a) Designing a software
b) Testing a software
c) Application of engineering principles to the design a software
d) None of the above

Answer: c
Explanation: Software engineering is the application of engineering principles to the design, development, and support of software and it helps to solve the challenges of low-quality software projects.

3. Who is the father of Software Engineering?
a) Margaret Hamilton
b) Watts S. Humphrey
c) Alan Turing
d) Boris Beizer

Answer: b
Explanation: Watts S. Humphrey created the Software Process Program at Carnegie Mellon University's Institute (SEI) in the 1980s, and served as its director from 1986 through the early 1990s. This program was designed to help participants understand and manage the software developement process.

4. What are the features of Software Code?
a) Simplicity
b) Accessibility
c) Modularity

d) All of the above

Answer: c
Explanation: Software code should be written in a clear, succinct, and easy-to-understand way. Simplicity should be preserved in the program code's organization, implementation, and design. These codes should be constructed in such a way that software components (such as files and functions) are readily available. The software may be broken down into numerous parts to make it easier to comprehend and troubleshoot.

5. _____ is a software development activity that is not a part of software processes.
a) Validation
b) Specification
c) Development
d) Dependence

Answer: d
Explanation: A software dependency is an external independent library that can range in size from a single file to numerous files and directories arranged into packages to accomplish a specified purpose and is an attribute and not an engineering activity for process.

6. Define Agile scrum methodology.
a) project management that emphasizes incremental progress
b) project management that emphasizes decremental progress
c) project management that emphasizes neutral progress
d) project management that emphasizes no progress

Answer: a
Explanation: Agile scrum methodology is a style of project management that emphasizes incremental progress. Each iteration is divided into two to four-week sprints, with the goal of completing the most important features first and delivering a possibly deliverable product at the end of each sprint.

7. CASE stands for
a) Computer-Aided Software Engineering
b) Control Aided Science and Engineering
c) Cost Aided System Experiments
d) None of the mentioned

Answer: a
Explanation: The CASE tool's purpose is to make the work of software development and maintenance easier and more reliable.

8. _____ is defined as the process of generating analysis and designing documents?
a) Re-engineering
b) Reverse engineering
c) Software re-engineering
d) Science and engineering

Answer: b
Explanation: The method of reverse engineering is used to uncover difficult, unknown, and hidden information about a software system.

9. The activity that distributes estimated effort across the planned project duration by allocating the effort to specific software developing tasks is _____
a) Project scheduling
b) Detailed schedule
c) Macroscopic schedule
d) None of the mentioned

Answer: a
Explanation: Software project scheduling is the process of allocating anticipated effort to specific software developing activities and distributing it across the project's intended length. A macroscopic schedule is created in the early phases of project planning.

10. What is a Functional Requirement?
a) specifies the tasks the program must complete
b) specifies the tasks the program should not complete
c) specifies the tasks the program must not work
d) All of the mentioned

Answer: a
Explanation: A functional requirement is a specification that describes a system or one of its components. It specifies the tasks the program must complete. A function is made up of three parts: inputs, behavior, and outputs.

11. Why do bugs and failures occur in software?
a) Because of Developers
b) Because of companies
c) Because of both companies and Developers

d) None of the mentioned

Answer: c
Explanation: Software businesses are in charge of establishing policies and creating a working environment for software development, therefore they are a component of the software development process. Bugs from developers are nothing new.

12. Attributes of good software is _____
a) Development
b) Maintainability & functionality
c) Functionality
d) Maintainability

Answer: b
Explanation: Good software should provide the functionality and maintainability that are necessary. Software development is a must, not an option. Along with this software also additional attributes like usability, efficiency, reliability, accuracy, robustness, integrity, etc.

13. The Cleanroom philosophy was proposed by _____
a) Linger
b) Mills
c) Dyer
d) All of the Mentioned

Answer: d
Explanation: Mills, Dyer, and Linger initially suggested the Cleanroom concept in the 1980s. The main goal of the philosophy of cleanroom philosophy is to develop software with zero defects.

14. What does SDLC stands for?
a) System Design Life Cycle
b) Software Design Life Cycle
c) Software Development Life Cycle
d) System Development Life cycle

Answer: c
Explanation: The Software Development Life Cycle (SDLC) is a method for designing, developing, and testing high-quality software. The software developed to meet or exceed customer expectations must have an SDLC designed to complete the software on time and on budget.

15. Who proposed the spiral model?
a) Barry Boehm
b) Pressman
c) Royce
d) IBM

Answer: a
Explanation: The spiral model by Boehm, is a software process model that combines prototyping's iterative characteristic with the linear sequential model's regulated and systematic elements. It implements the capability of quick production of new software versions.

16. _____ is not among the eight principles followed by the Software Code of Ethics and Professional Practice.
a) PRODUCT
b) ENVIRONMENT
c) PUBLIC
d) PROFESSION

Answer: b
Explanation: The rest are software ethical provisions; the environment does not focus on individual clauses or their importance in relation to the topic. The eight principles that should be followed by the Software code is:
1. PUBLIC
2. CLIENT AND EMPLOYER
3. PRODUCT
4. JUDGMENT
5. MANAGEMENT
6. PROFESSION
7. COLLEAGUES
8. SELF

17. Which of the following are CASE tools?
a) Central Repository
b) Integrated Case Tools
c) Upper Case Tools
d) All of the mentioned

Answer: d
Explanation: CASE tools can be divided into Central Repository, Integrated Case Tools, Upper Case Tools, and Lower Case Tools based on their use at a particular SDLC stage.

18. _____ suits the Manifesto for Agile Software Development.
a) Customer collaboration
b) Individuals and interactions
c) Working software
d) All of the mentioned

Answer: d
Explanation: None.

19. Software patch is defined as _____
a) Daily or routine Fix
b) Required or Critical Fix
c) Emergency Fix
d) None of the mentioned

Answer: c
Explanation: When a vulnerability is discovered, a software patch is applied to the outdated version as an emergency repair. To repair a vulnerability or flaw discovered after an application or software has been released is referred to as software patching.

20. _____ software development team has no permanent leader.
a) Controlled Centralized (CC)
b) Controlled decentralized (CD)
c) Democratic decentralized (DD)
d) None of the mentioned

Answer: c
Explanation: Team members Communicate among themselves horizontally. There is no permanent leader in the team and a team of software engineers coordinates among themselves temporarily to perform the task.

21. Regardless of application area, project size, or complexity, software development work may be divided into three generic phases: the_____ phase, which focuses on what, the_____ phase, which focuses on how, and the_____ phase, which focuses on change.
i. support
ii. development
iii. definition
a) iii, ii, i
b) iii, i, ii
c) i, ii, iii

d) ii, i, iii

Answer: a
Explanation: Irrespective of the application area, project size, or complexity, software development work may be divided into three generic phases: the definition phase, which focuses on *what*, the development phase, which focuses on *how*, and the support phase, which focuses on *change*.

22. _____ is not a fundamental activity for software processes in software development.
a) Evolution
b) Design and implementation
c) Validation
d) Verification

Answer: d
Explanation: Implementation and testing activities account for software verification. Software Verification is a process that ensures that the software developed is accurate and meets the user's expectations.

23. What are agile manifesto principles?
a) Customer satisfaction
b) Face-to-face communication within a development team
c) Changes in requirements are welcome
d) All of the mentioned

Answer: d
Explanation: Principles of the agile manifesto are:
i) Customer satisfaction is a priority.
ii) Changes in requirements are welcome, if they occur late in the development process.
iii) Deliver working software on a regular basis.
iv) Business people and developers must connect on a daily basis through the project.
v) Support people who are interested and passionate about developing.
vi) Face-to-face communication within a development team.
vii) Working software indicates progress.
viii) Sustainable development is aided by agile processes.
ix) A constant focus on technical excellence and smart design improve agility.
x) Simplicity, or the art of minimizing the amount of effort that isn't done, is critical.
xi) Self-organizing teams
xii) The team reflects on how to become more effective at regular intervals, then selects its behavior accordingly.

24. Faster delivery is possible with CBSE.
a) False
b) True

Answer: b
Explanation: They build more dependable systems at a faster rate because they use previously validated components. The software developed by CBSE uses reusable components.

25. Who proposed Function Points?
a) Albrecht
b) Jacobson
c) Boehm
d) Booch

Answer: a
Explanation: Since Albrecht presented functional points in 1979, hundreds of books and articles have been produced on the subject.

26. _____ is a software development life cycle model that is chosen if the development team has less experience on similar projects.
a) Iterative Enhancement Model
b) RAD
c) Spiral
d) Waterfall

Answer: c
Explanation: For many applications, relying on risk assessment/analysis gives more freedom than is necessary, overcoming the requirements of less experienced developers.

27. Agile Software Development is based on which of the following type?
a) Iterative Development
b) Incremental Development
c) Both Incremental and Iterative Development
d) Linear Development

Answer: c
Explanation: The software is built in increments, with the client stating the criteria to be included in each increment, and the top goal is to please the customer by delivering valuable software early and frequently. They're iterative because they work on one iteration before moving on to the next.

28. _____ is a software developing team has a defined leader who coordinates specific tasks and secondary leaders that have responsibility for sub tasks.
a) Democratic decentralized (DD)
b) Controlled centralized (CC)
c) Controlled decentralized (CD)
d) None of the mentioned

Answer: c
Explanation: Problem-solving is still a group activity, but the team leader divides the execution of solutions into subgroups and it is known as a Controlled decentralized team. In Democratic decentralized, there is no permanent leader in the team and a team of software developers coordinates among themselves temporarily to perform the task.

29. 4GT Model is a set of _____
a) Programs
b) CASE Tools
c) Software tools
d) None of the mentioned

Answer: c
Explanation: 4GT is a collection of software tools that allow a software developer to describe high-level features and have source code created automatically based on those requirements.

30. Engineers developing software should not
a) be dependent on their colleagues
b) maintain integrity and independence in their professional judgment
c) not knowingly accept work that is outside your competence
d) not use your technical skills to misuse other people's computers

Answer: a
Explanation:None.

31. _____ is not suitable for accommodating any change?
a) RAD Model
b) Waterfall Model
c) Build & Fix Model
d) Prototyping Model

Answer: b
Explanation: Real-world projects seldom follow the Waterfall Model's proposed

sequential sequence. A Sequential model is an example of a waterfall model. The software development activity is split into several phases in this paradigm, with each phase consisting of a sequence of activities and having different goals.

32. The model which has a major disadvantage in terms of the coding phase of a software life cycle model is _____

a) Rad Model
b) Spiral Model
c) 4GT Model
d) Waterfall Model

Answer: c
Explanation: Since the coding phase is eliminated in 4GT Model, more expertise is required for analysis, design and testing activities.

33. Adaptive Software Development(ASD) has which of the following three framework activities?

a) speculation, collaboration, learning
b) analysis, design, coding
c) requirements gathering, adaptive cycle planning, iterative development
d) all of the mentioned

Answer: a
Explanation: None.

34. Which of the following is not a project factor that should be considered when planning the structure of software developing teams?

a) The rigidity of the delivery date
b) The degree of sociability required for the project
c) High frustration caused by personal, business, or technological factors that causes friction among team members
d) The difficulty of the problem to be solved

Answer: b
Explanation: Development is irrelevant to the social quotient.

35. What is the full form of the "COCOMO" model?

a) Cost Constructive Estimation Model
b) Constructive Cost Estimation Model
c) Constructive Case Estimation Model
d) Constructive Cost Estimating Model

Answer: b
Explanation: The Cocomo (Constructive Cost Model) regression model is based on the number of lines of code. It is a procedural cost estimate model that is frequently used as a method of accurately estimating size, effort, cost, duration, and quality for a project completion.

36. Which one of the following is not a software process quality?
a) Visibility
b) Timeliness
c) Productivity
d) Portability

Answer: d
Explanation: Portability is a software product quality which means software can run on different hardware platforms or environments.

37. Cleanroom software development process complies with the operational analysis principles by using a method called known as
a) referential transparency
b) degenerative error correction
c) box structure specification
d) none of the mentioned

Answer: c
Explanation: Box structures are descriptions of functions that exhibit properties essential for effective system specification and design.

38. What is system software?
a) computer program
b) Testing
c) AI
d) IOT

Answer: a
Explanation: System software is a sort of computer program that manages the hardware and applications on a computer. They are of three types: This is the operating system. This is a language processor. Software that is useful.

39. Quality Management is known as _____
a) SQI
b) SQA
c) SQM

d) SQA and SQM

Answer: b
Explanation: Software quality assurance (SQA) is another name for quality management, which is an umbrella activity that is used throughout the software development process.

40. _____ is the definition of objects in the database that leads directly to a standard approach for the creation of software documentation.
a) Data/data integration
b) Information sharing
c) Document standardization
d) Data integrity

Answer: c
Explanation: In a software project, documentation standards are critical since papers are the only concrete means to describe the program and the development process. Standardized papers should be easy to read and comprehend since they have a uniform look, structure, and quality.

41. _____ is an indirect measure of software development process.
a) Cost
b) Effort Applied
c) Efficiency
d) All of the mentioned

Answer: c
Explanation: Efficiency is an indirect measure. Indirect measures also include products like maintainability, quality, functionality, complexity, reliability, and many more.

42. According to an IBM research, "31% of projects are abandoned before they are completed, 53% exceed their cost projections by an average of 189 percent, and 94 projects are restarted for every 100 projects." What is the significance of these figures?
a) Lack of software ethics and understanding
b) Management issues in the company
c) Lack of adequate training
d) All of the mentioned

Answer: c
Explanation: Lack of software ethics and knowledge, as well as corporate management difficulties, are all aspects of Software Development, therefore this is a possibility. Both are due to a lack of sufficient training.

43. Which of the following document contains the user system requirements?
a) SRD
b) DDD
c) SDD
d) SRS

Answer: d
Explanation: A software requirements specification (SRS) is a detailed explanation of how a system should behave before it is built. It may also include a collection of use cases that explain how users will interact with the programme.

44. _____ specification is also known as SRS document.
a) white-box
b) grey-box
c) black-box
d) none of the mentioned

Answer: c
Explanation: The system is regarded as a black box, with no knowledge of its underlying workings, and just its observable exterior (input/output) behavior described.

45. Which of the following is not a part of Software evolution?
a) Re-engineering activities
b) Maintenance activities
c) Development activities
d) Negotiating with client

Answer: d
Explanation: The study and management of the process of making changes to software through time is referred to as software evolution. As a result, the remaining three alternatives are available.

46. _____ is a Strategy to achieve Software diversity.
a) Explicit specification of different algorithms
b) Different programming languages
c) Different design methods and tools
d) All of the mentioned

Answer: d
Explanation: Diversity refers to the ability to deliver the same functionality in a variety of ways so that essential components of a dependable system do not fail in the same way. Because we all have varied life experiences, backgrounds, and expertise, adding

variety to the problem-solving process is essential because it allows us to come up with new ideas and methods.

47. In which step of SDLC actual programming of software code is done?
a) Development and Documentation
b) Maintenance and Evaluation
c) Design
d) Analysis

Answer: a
Explanation: The documentation explains the functions of the final product. The developer must discover adequate knowledge in the technical documentation to begin coding.

48. Software Debugging is known as _____
a) identifying the task to be computerized
b) creating program code
c) creating the algorithm
d) finding and correcting errors in the program code

Answer: d
Explanation: Software Debugging is the systematic process of identifying and decreasing the number of bugs or faults in a computer program or a piece of electrical gear so that it behaves as intended.

49. The word which describes the importance of software design is?
a) Complexity
b) Quality
c) Efficiency
d) Accuracy

Answer: b
Explanation: The degree to which software complies with or adheres to a particular design based on functional requirements or specifications is referred to as functional quality.

50. The incorrect activity among the following for the configuration management of a software system is _____
a) Version management
b) System management
c) Change management
d) Internship management

Answer: d
Explanation: The policies and methods for configuration management describe how to track and process proposed system changes, as well as how to select which system components to modify, how to manage various versions of the system and its components, and how to disseminate changes to customers.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Software Life Cycle Models".

51. 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
Explanation: Build & Fix Model is suitable for small projects & programming exercises of 100 or 200 lines.

52. RAD stands for
a) Relative Application Development
b) Rapid Application Development
c) Rapid Application Document
d) None of the mentioned

Answer: b
Explanation: None.

53. 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
Explanation: Real projects rarely follow the sequential flow that the Waterfall Model proposes.

54. 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
Explanation: Their is no such thing as Diagonal Prototype whereas other options have their respective definitions.

55. 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
Explanation: A prototyping model generates only a working model of a system.

56. Which of the following statements regarding Build & Fix Model is wrong?
a) No room for structured design
b) Code soon becomes unfixable & unchangeable
c) Maintenance is practically not possible
d) It scales up well to large projects

Answer: d
Explanation: Build & Fix Model is suitable for 100-200 LOC

57. RAD Model has
a) 2 phases
b) 3 phase
c) 5 phases
d) 6 phases

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

58. What is the major drawback of using RAD Model?
a) Highly specialized & skilled developers/designers are required
b) Increases reusability of components
c) Encourages customer/client feedback
d) Increases reusability of components, Highly specialized & skilled developers/designers are required

Answer: d
Explanation: 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.

59. SDLC stands for
a) Software Development Life Cycle
b) System Development Life cycle
c) Software Design Life Cycle
d) System Design Life Cycle

Answer: a
Explanation: None.

60. Which model can be selected if user is involved in all the phases of SDLC?
a) Waterfall Model
b) Prototyping Model
c) RAD Model
d) both Prototyping Model & RAD Model

Answer: c
Explanation: None.

This set of Software Engineering Questions and Answers for Campus interviews focuses on "Evolutionary Software Process Models".

61. Which one of the following is not an Evolutionary Process Model?
a) WINWIN Spiral Model
b) Incremental Model
c) Concurrent Development Model
d) All of the mentioned

Answer: d
Explanation: None.

62. The Incremental Model is a result of combination of elements of which two models?
a) Build & FIX Model & Waterfall Model
b) Linear Model & RAD Model
c) Linear Model & Prototyping Model
d) Waterfall Model & RAD Model

Answer: c
Explanation: Each linear sequence produces a deliverable “increment” of the software and particularly when we have to quickly deliver a limited functionality system.

63. What is the major advantage of using Incremental Model?
a) Customer can respond to each increment
b) Easier to test and debug
c) It is used when there is a need to get a product to the market early
d) Easier to test and debug & It is used when there is a need to get a product to the market early

Answer: d
Explanation: Incremental Model is generally easier to test and debug than other methods of software development because relatively smaller changes are made during each iteration and is popular particularly when we have to quickly deliver a limited functionality system.However, option “a” can be seen in other models as well like RAD model,hence option “d” answers the question.

64. The spiral model was originally proposed by
a) IBM
b) Barry Boehm
c) Pressman
d) Royce

Answer: b
Explanation: None.

65. The spiral model has two dimensions namely _____ and _____
a) diagonal, angular
b) radial, perpendicular
c) radial, angular
d) diagonal, perpendicular

Answer: c
Explanation: The radial dimension of the model represents the cumulative costs and the angular dimension represents the progress made in completing each cycle. Each loop of the spiral from X-axis clockwise through 360° represents one phase.

66. How is WINWIN Spiral Model different from Spiral Model?
a) It defines tasks required to define resources, timelines, and other project related information
b) It defines a set of negotiation activities at the beginning of each pass around the spiral

c) It defines tasks required to assess both technical and management risks
d) It defines tasks required to construct, test, install, and provide user support

Answer: b
Explanation: Except option “b” all other tasks/activities are present in Spiral Model as well.

67. Identify the disadvantage of Spiral Model.
a) Doesn’t work well for smaller projects
b) High amount of risk analysis
c) Strong approval and documentation control
d) Additional Functionality can be added at a later date

Answer: a
Explanation: All other options are the advantages of Spiral Model.

68. Spiral Model has user involvement in all its phases.
a) True
b) False

Answer: b
Explanation: None.

69. How is Incremental Model different from Spiral Model?
a) Progress can be measured for Incremental Model
b) Changing requirements can be accommodated in Incremental Model
c) Users can see the system early in Incremental Model
d) All of the mentioned

Answer: a
Explanation: None.

70. If you were to create client/server applications, which model would you go for?
a) WINWIN Spiral Model
b) Spiral Model
c) Concurrent Model
d) Incremental Model

Answer: c
Explanation: When applied to client/server applications, the concurrent process model defines activities in two dimensions: a system dimension and a component dimension. Thus Concurrency is achieved by system and component activities occurring simultaneously and can be modeled using the state-oriented approach.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Software Process and Product – 1”.

71. Which one of the following is not a software process quality?
a) Productivity
b) Portability
c) Timeliness
d) Visibility

Answer: b
Explanation: Portability is a software product quality which means software can run on different hardware platforms or software environments.

72. _____&_____ are two kinds of software products.
a) CAD, CAM
b) Firmware, Embedded
c) Generic, Customised
d) None of the mentioned

Answer: c
Explanation: rest all are sub categories/applications of option c.

73. Software costs more to maintain than it does to develop.
a) True
b) False

Answer: a
Explanation: For systems with a long life, maintenance costs may be several times development costs.

74. Which one of the following is not an application of embedded software product?
a) keypad control of a security system
b) pattern recognition game playing
c) digital function of dashboard display in a car
d) none of the mentioned

Answer: b
Explanation: Pattern recognition uses Artificial Intelligence (AI) software.

75. Purpose of process is to deliver software
a) in time
b) with acceptable quality
c) that is cost efficient

d) both in time & with acceptable quality

Answer: d
Explanation: Cost of a software is a management issue & is not related to process activities.

76. The work associated with software engineering can be categorized into three generic phases,regardless of application area, project size, or complexity namely the_____ phase which focuses on what, the_____ phase which focuses on how and the_____ phase which focuses on change.
i. support
ii. development
iii. definition
a) 1, 2, 3
b) 2, 1, 3
c) 3, 2, 1
d) 3, 1, 2

Answer: c
Explanation: None.

77. Which of the following activities of a Generic Process framework provides a feedback report?
a) Communication
b) Planning
c) Modeling & Construction
d) Deployment

Answer: d
Explanation: In Deployment the product is delivered to the customer who evaluates the product and provides feedback based on the evaluation.

78. Process adopted for one project is same as the process adopted from another project.
a) True
b) False

Answer: b
Explanation: the overall flow of activities, actions,tasks,the level of autonomy given to the software team and the inter dependencies among two process can never be the same.

79. Which one of the following is not an Umbrella Activity that complements the five process framework activities and help team manage and control progress, quality, change, and risk.
a) Reusability management
b) Risk management
c) Measurement
d) User Reviews

Answer: d
Explanation: None.

80. Four types of change are encountered during the support phase.Which one of the following is not one that falls into such category?
a) Translation
b) Correction
c) Adaptation
d) Prevention

Answer: a
Explanation: Translation is done in the development phase.

This set of Software Engineering Questions and Answers for Freshers focuses on "Software Process and Product – 2".

81. If a software production gets behind schedule, one can add more programmers and catch up.
a) True
b) False

Answer: b
Explanation: As new people are added, people who were working must spend time educating the newcomers, thereby reducing the amount of time spent on productive development effort.

82. Choose an internal software quality from given below:
a) scalability
b) usability
c) reusability
d) reliability

Answer: c
Explanation: rest all are external qualities which are visible to the user.

83. RUP stands for_____ created by a division of _____
a) Rational Unified Program, IBM
b) Rational Unified Process, Infosys
c) Rational Unified Process, Microsoft
d) Rational Unified Process, IBM

Answer: d
Explanation: None.

84. The RUP is normally described from three perspectives-dynamic, static & practice.What does static perspective do ?
a) It shows the process activities that are enacted
b) It suggests good practices to be used during the process
c) It shows the phases of the model over time
d) All of the mentioned

Answer: a
Explanation: None.

85. The only deliverable work product for a successful project is the working program.
a) True
b) False

Answer: b
Explanation: A working program is only one part of a software configuration that includes many elements. Documentation provides a foundation for successful engineering and, more important, guidance for software support.

86. Which phase of the RUP is used to establish a business case for the system ?
a) Transition
b) Elaboration
c) Construction
d) Inception

Answer: d
Explanation: None.

87. Which one of the following is not a fundamental activity for software processes in software engineering ?
a) Software Verification

b) Software Validation
c) Software design and implementation
d) Software evolution

Answer: a
Explanation: Software Verification is accounted for in implementation & testing activity.

88. A general statement of objectives is the major cause of failed software efforts.
a) True
b) False

Answer: a
Explanation: A formal and detailed description of the information domain, function, behavior, performance, interfaces, design constraints and validation criteria is essential which can be determined only after thorough communication between customer and developer.

89. The longer a fault exists in software
a) the more tedious its removal becomes
b) the more costly it is to detect and correct
c) the less likely it is to be properly corrected
d) All of the mentioned

Answer: d
Explanation: None.

90. Component-based Software Engineering allows faster delivery.
a) True
b) False

Answer: a
Explanation: Due to using previously tested components they produce more reliable system at a faster rate.

91. Arrange the following steps to form a basic/general Engineering Process Model.
i. Test
ii. Design
iii. Install
iv. Specification
v. Manufacture
vi. Maintain
a) 2, 4, 5, 1, 6, 3
b) 4, 2, 5, 1, 3, 6

c) 2, 4, 5, 1, 3, 6
d) 4, 2, 5, 1, 6, 3

Answer: b
Explanation: None.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Agile Software Development”.

91. Select the option that suits the Manifesto for Agile Software Development
a) Individuals and interactions
b) Working software
c) Customer collaboration
d) All of the mentioned

Answer:d
Explanation: None.

92. Agile Software Development is based on
a) Incremental Development
b) Iterative Development
c) Linear Development
d) Both Incremental and Iterative Development

Answer:d
Explanation: The software is developed in increments with the customer specifying the requirements to be included in each increment and the highest priority is to satisfy the customer through early and continuous delivery of valuable software. They are iterative because they work on one iteration followed by improvements in next iteration

93. Which on of the following is not an agile method?
a) XP
b) 4GT
c) AUP
d) All of the mentioned

Answer:b
Explanation: The 4GT approach does not incorporate iteration and the continuous feedback,which is the fundamental aspect of an agile method.

94. Agility is defined as the ability of a project team to respond rapidly to a change.
a) True
b) False

Answer: a
Explanation: The aim of agile methods is to reduce overheads in the software process and to be able to respond quickly to changing requirements without excessive rework.

95. How is plan driven development different from agile development ?
a) Outputs are decided through a process of negotiation during the software development process
b) Specification, design, implementation and testing are interleaved
c) Iteration occurs within activities
d) All of the mentioned

Answer:c
Explanation: A plan-driven approach to software engineering is based around separate development stages with the outputs to be produced at each of these stages planned in advance.

96. How many phases are there in Scrum ?
a) Two
b) Three
c) Four
d) Scrum is an agile method which means it does not have phases

Answer:b
Explanation: There are three phases in Scrum.The initial phase is an outline planning phase followed by a series of sprint cycles and project closure phase.

97. Agile methods seem to work best when team members have a relatively high skill level.
a) True
b) False

Answer:a
Explanation: None.

98. Which of the following does not apply to agility to a software process?
a) Uses incremental product delivery strategy
b) Only essential work products are produced
c) Eliminate the use of project planning and testing

d) All of the mentioned

Answer:c
Explanation: Testing is a major part of each software development process which can't be avoided.

99. Which three framework activities are present in Adaptive Software Development(ASD) ?
a) analysis, design, coding
b) requirements gathering, adaptive cycle planning, iterative development
c) speculation, collaboration, learning
d) all of the mentioned

Answer:c
Explanation: None.

100. In agile development it is more important to build software that meets the customers' needs today than worry about features that might be needed in the future.
a) True
b) False

Answer:a
Explanation: None.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Requirement Engineering".

101. What are the types of requirements ?
a) Availability
b) Reliability
c) Usability
d) All of the mentioned

Answer: d
Explanation: All the mentioned traits are beneficial for an effective product to be developed.

102. Select the developer-specific requirement ?
a) Portability
b) Maintainability
c) Availability

d) Both Portability and Maintainability

Answer: d
Explanation: Availability is user specific requirement.

103. Which one of the following is not a step of requirement engineering?
a) elicitation
b) design
c) analysis
d) documentation

Answer: b
Explanation: 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.

104. FAST stands for
a) Functional Application Specification Technique
b) Fast Application Specification Technique
c) Facilitated Application Specification Technique
d) None of the mentioned

Answer: c
Explanation: None.

105. QFD stands for
a) quality function design
b) quality function development
c) quality function deployment
d) none of the mentioned

Answer: c
Explanation: None.

106. A Use-case actor is always a person having a role that different people may play.
a) True
b) False

Answer: b
Explanation: Use-case Actor is anything that needs to interact with the system, be it a person or another (external) system.

107. The user system requirements are the parts of which document ?
a) SDD
b) SRS
c) DDD
d) SRD

Answer: b
Explanation: Software requirements specification (SRS), is a complete description of the behaviour of a system to be developed and may include a set of use cases that describe interactions the users will have with the software.

108. A stakeholder is anyone who will purchase the completed software system under development.
a) True
b) False

Answer: b
Explanation: Stakeholders are anyone who has an interest in the project. Project stakeholders are individuals and organizations that are actively involved in the project, or whose interests may be affected as a result of project execution or project completion.

109. Conflicting requirements are common in Requirement Engineering, with each client proposing his or her version is the right one.
a) True
b) False

Answer: a
Explanation: This situation is seen in every field of work as each professional has his/her way of looking onto things & would argue to get his/her point approved.

110. Which is one of the most important stakeholder from the following ?
a) Entry level personnel
b) Middle level stakeholder
c) Managers
d) Users of the software

Answer: d
Explanation: Users are always the most important stakeholders.After all, without users or customers, what’s the point of being in business?.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Functional and Non-Functional Requirements”.

111. Which one of the following is a functional requirement ?
a) Maintainability
b) Portability
c) Robustness
d) None of the mentioned

Answer: d
Explanation: All are non-functional requirements representing quality of the system. Functional requirements describe what the software has to do.

112. Which one of the following is a requirement that fits in a developer’s module ?
a) Availability
b) Testability
c) Usability
d) Flexibility

Answer: b
Explanation: A developer needs to test his product before launching it into the market.

113. “Consider a system where, a heat sensor detects an intrusion and alerts the security company.” What kind of a requirement the system is providing ?
a) Functional
b) Non-Functional
c) Known Requirement
d) None of the mentioned

Answer: a
Explanation: Functional requirements describe what the software has to do.

114. Which of the following statements explains portability in non-functional requirements?
a) It is a degree to which software running on one platform can easily be converted to run on another platform
b) It cannot be enhanced by using languages, OS’ and tools that are universally available and standardized
c) The ability of the system to behave consistently in a user-acceptable manner when operating within the environment for which the system was intended
d) None of the mentioned

Answer: a
Explanation: Option c is termed as reliability and option e refers to efficiency.

115. Functional requirements capture the intended behavior of the system.
a) True
b) False

Answer: a
Explanation: The behavior of functional requirements may be expressed as services, tasks or functions the system is required to perform.

116. Choose the incorrect statement with respect to Non-Functional Requirement(NFR).
a) Product-oriented Approach – Focus on system (or software) quality
b) Process-oriented Approach – Focus on how NFRs can be used in the design process
c) Quantitative Approach – Find measurable scales for the functionality attributes
d) Qualitative Approach – Study various relationships between quality goals

Answer: c
Explanation: Quantitative Approaches in NFRs are used to find measurable scales for the quality attributes like efficiency, flexibility, integrity, usability etc.

117. How many classification schemes have been developed for NFRs ?
a) Two
b) Three
c) Four
d) Five

Answer: d
Explanation: Software Quality Tree [Boehm 1976], Roman [IEEE Computer 1985], Process-Product-External considerations [Sommerville 1992], Mc Call's NFR list and Dimensions of Quality–Components of FURPS+ are the five classification schemes for NFRs.

118. According to components of FURPS+, which of the following does not belong to S ?
a) Testability
b) Speed Efficiency
c) Serviceability
d) Installability

Answer: b
Explanation: Speed Efficiency belong to Performance (P) in FURPS+ .

119. Does software wear & tear by decomposition ?
a) Yes
b) No

Answer: b
Explanation: Unlike hardware, software is reliable.

120. What are the four dimensions of Dependability ?
a) Usability, Reliability, Security, Flexibility
b) Availability, Reliability, Maintainability, Security
c) Availability, Reliability, Security, Safety
d) Security, Safety, Testability, Usability

Answer: c
Explanation: All the traits of option c sync with dependability.

121. Choose the correct statement on how NFRs integrates with Rational Unified Process ?
a) System responds within 4 seconds on average to local user requests and changes in the environment
b) System responds within 4 seconds on average to remote user requests and changes in the environment
c) All of the mentioned
d) None of the mentioned

Answer: b
Explanation: System response to a local user is 2 seconds on average.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Requirement Elicitation”.

121. What is the first step of requirement elicitation ?
a) Identifying Stakeholder
b) Listing out Requirements
c) Requirements Gathering
d) All of the mentioned

Answer: a
Explanation: Stakeholders are the one who will invest in and use the product, so its essential to chalk out stakeholders first.

122. Starting from least to most important, choose the order of stakeholder.
i. Managers
ii. Entry level Personnel
iii. Users
iv. Middle level stakeholder
a) i, ii, iv, iii
b) i, ii, iii, iv
c) ii, iv, i, iii
d) All of the mentioned

Answer: c
Explanation: Users are your customers, they will be using your product, thus making them most important of all.

123. Arrange the tasks involved in requirements elicitation in an appropriate manner.
i. Consolidation
ii. Prioritization
iii. Requirements Gathering
iv. Evaluation
a) iii, i, ii, iv
b) iii, iv, ii, i
c) iii, ii, iv, i
d) ii, iii, iv, i

Answer: b
Explanation: Requirements gathering captures viewpoint from different users followed by evaluation of those view points.Now comes the task of checking the relative importance of the requirements and finally to consolidate or bind together the information collected.

124. What are the types of requirement in Quality Function Deployment(QFD) ?
a) Known, Unknown, Undreamed
b) User, Developer
c) Functional, Non-Functional
d) Normal, Expected, Exciting

Answer: d
Explanation: According to QFD, Normal, Expected and Exciting requirements maximizes customer satisfaction from the Software Engineering Process.

125. What kind of approach was introduced for elicitation and modelling to give a functional view of the system ?

a) Object Oriented Design (by Booch)
b) Use Cases (by Jacobson)
c) Fusion (by Coleman)
d) Object Modeling Technique (by Rumbaugh)

Answer: b
Explanation: Use Case captures who does what with the system, for what purpose, without dealing with system internals.

126. What are the kinds of actors used in OOSE ?
a) Primary
b) Secondary
c) Ternary
d) Both Primary and Secondary

Answer: d
Explanation: A primary actor is one having a goal requiring the assistance of the system whereas, a secondary actor is one from which system needs assistance.There is no such thing as ternary actor in Software Engineering.

127. Why is Requirements Elicitation a difficult task ?
a) Problem of scope
b) Problem of understanding
c) Problem of volatility
d) All of the mentioned

Answer: d
Explanation: Users specify unnecessary technical detail that may confuse, rather than clarify overall system objectives.Also, the customers/users are not completely sure of what is needed, have a poor understanding of the capabilities and limitations of their computing environment and they do not understand that the requirements change over time.

128. What requirement gathering method developed at IBM in 1970s is used for managing requirement elicitation ?
a) JAD
b) Traceability
c) FAST
d) Both JAD and Traceability

Answer: d
Explanation: Joint application design (JAD) is a process used to collect business

requirements while developing new information systems for a company. Requirements traceability is concerned with documenting the life of a requirement and providing bi-directional traceability between various associated requirements.

129. Requirements elicitation is a cyclic process
a) True
b) False

Answer: a
Explanation: Requirements traceability provides bi-directional traceability between various associated requirements.

130. How many Scenarios are there in elicitation activities ?
a) One
b) Two
c) Three
d) Four

Answer: d
Explanation: As-is Scenario, Visionary Scenario, Evaluation Scenario and Training Scenario are the four scenarios in requirement elicitation activities.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Requirement Elicitation Techniques -1".

131. Which of the following elicitation techniques is a viewpoint based method?
a) FODA
b) QFD
c) CORE
d) IBIS

Answer: c
Explanation: Controlled Requirements Expression(CORE) says that any system can be viewed from a number of view points and that a complete picture of system requirements can only emerge by putting together the various viewpoints.

132. _____ and _____ are the two view points discussed in Controlled Requirements Expression (CORE).
a) Functional, Non-Functional
b) User, Developer
c) Known, Unknown

d) All of the mentioned

Answer: a
Explanation: The CORE sessions includes the discussion of functional and non-functional requirements.

133. What is the major drawback of CORE ?
a) Requirements are comprehensive
b) NFRs are not given enough importance
c) Role of analyst is passive
d) All of the mentioned

Answer: c
Explanation: In CORE the requirement specification are put together by all users, customers and analysts, so a passive analyst will not get the requirements properly.

134. Choose a framework that corresponds to Issue Based Information System (IBIS).
a) Idea -> Question -> Argument
b) Question -> Idea -> Argument
c) Issue -> Position -> Justification
d) Both Question -> Idea -> Argument and Issue -> Position -> Justification

Answer: d
Explanation: IBIS is a simple and non-intrusive method that provides a framework for resolving issues and gathering requirements.

135. How is CORE different from IBIS ?
a) Iterative in nature
b) Redundancies are removed
c) It is simple and an easier method to use
d) Consistency problems are addressed in CORE

Answer: d
Explanation: Preliminary data collection is done in CORE to get some broad level data on each view point to structure the view point and to check consistency from within and outside the viewpoints.

136. Which of the following Requirement Elicitation Techniques removes the poor understanding of application domain and lack of common terminology between the users and the analysts ?
a) FODA
b) CORE
c) IBIS

d) Prototyping

Answer: a
Explanation: Feature Oriented Domain Analysis (FODA) is defined as the process of identifying, collecting, organizing and representing relevant information in a domain .

137. How many steps are involved in Feature Oriented Domain Analysis (FODA) ?
a) Two
b) Three
c) Four
d) Five

Answer: b
Explanation: Context Analysis, Domain Modeling and Architecture Modeling are the three steps involved in Feature Oriented Domain Analysis (FODA).

138. IBIS is a more structured approach than CORE.
a) True
b) False

Answer: a
Explanation: IBIS is a more structured approach as it captures information which is consistent and important.On the other hand CORE gives importance to every view point even if it is obsolete.

139. Which one of the following is not an actor in JAD sessions ?
a) User
b) Tester
c) Scribe
d) Sponsor

Answer: b
Explanation: A Tester's role is seen in after coding phase rather than in elicitation phase.

140. What of the following is not an output of a JAD session ?
a) Context Diagrams
b) DFDs
c) ER model
d) UML diagrams

Answer: d
Explanation: Unified Modeling Language (UML) diagrams are constructed during the design phase of the SDLC

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Requirement Analysis".

141. Which of the following is not a diagram studied in Requirement Analysis ?
a) Use Cases
b) Entity Relationship Diagram
c) State Transition Diagram
d) Activity Diagram

Answer: d
Explanation: Activity Diagram comes under the design phase of SDLC.

142. How many feasibility studies is conducted in Requirement Analysis ?
a) Two
b) Three
c) Four
d) None of the mentioned

Answer: b
Explanation: Economic feasibility (cost/benefit analysis), Technical feasibility (hardware/software/people, etc.) and Legal feasibility studies are done in Requirement Analysis.

143. How many phases are there in Requirement Analysis ?
a) Three
b) Four
c) Five
d) Six

Answer: c
Explanation: Problem Recognition, Evaluation and Synthesis (focus is on what not how), Modeling, Specification and Review are the five phases.

144. Traceability is not considered in Requirement Analysis.
a) True
b) False

Answer: b
Explanation: Requirements traceability is concerned with documenting the life of a requirement and providing bi-directional traceability between various associated requirements, hence requirements must be traceable.

145. Requirements analysis is critical to the success of a development project.
a) True
b) False
c) Depends upon the size of project
d) None of the mentioned

Answer: a
Explanation: Requirements must be actionable, measurable, testable, related to identified business needs or opportunities, and defined to a level of detail sufficient for system design.

146. _____ and _____ are the two issues of Requirement Analysis.
a) Performance, Design
b) Stakeholder, Developer
c) Functional, Non-Functional
d) None of the mentioned

Answer: b
Explanation: Option a and c are the types of requirements and not the issues of requirement analysis..

147. The requirements that result from requirements analysis are typically expressed from one of three perspectives or views.WhaT is that perspective or view ?
a) Developer
b) User
c) Non-Functional
d) Physical

Answer: d
Explanation: The perspectives or views have been described as the Operational, Functional, and Physical views.All three are necessary and must be coordinated to fully understand the customers' needs and objectives.

148. Requirements Analysis is an Iterative Process.
a) True
b) False

Answer: a
Explanation: Requirements analysis is conducted iteratively with functional analysis to optimize performance requirements for identified functions, and to verify that synthesized solutions can satisfy customer requirements.

149. Coad and Yourdon suggested _____ selection characteristics that should be used as an analyst considers each potential object for inclusion in the requirement analysis model.
a) Three
b) Four
c) Five
d) Six

Answer: d
Explanation: Retained information, Needed services, Multiple attributes, Common attributes, Common operations and Essential requirements are the six criterion mentioned by Coad and Yourdon.

150. Requirements should specify 'what' but not 'how'.
a) True
b) False

Answer: a
Explanation: 'What' refers to a system's purpose, while 'How' refers to a system's structure and behavior.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Requirement Documentation".

151. Which of the following property does not correspond to a good Software Requirements Specification (SRS) ?
a) Verifiable
b) Ambiguous
c) Complete
d) Traceable

Answer: b
Explanation: The SRS should be unambiguous in nature which means each sentence in SRS should have a unique interpretation.

152. Which of the following property of SRS is depicted by the statement : “Conformity to a standard is maintained” ?
a) Correct
b) Complete
c) Consistent
d) Modifiable

Answer: b
Explanation: The SRS is complete full labeling and referencing of all figures, tables etc. and definition of all terms and units of measure is defined.

153. The SRS is said to be consistent if and only if
a) its structure and style are such that any changes to the requirements can be made easily while retaining the style and structure
b) every requirement stated therein is one that the software shall meet
c) every requirement stated therein is verifiable
d) no subset of individual requirements described in it conflict with each other

Answer: d
Explanation: Real world object may conflict with each other for example one requirement says that all lights should be red while the other states that all lights should green.

154. Which of the following statements about SRS is/are true ?
i. SRS is written by customer
ii. SRS is written by a developer
iii. SRS serves as a contract between customer and developer
a) Only i is true
b) Both ii and iii are true
c) All are true
d) None of the mentioned

Answer: c
Explanation: The SRS acts as a communication media between the Customer, Analyst, system developers, maintainers etc. Thus it is a contract between Purchaser and Supplier. It is essentially written by a developer on the basis of customer’ need but in some cases it may be written by a customer as well.

155. The SRS document is also known as _____ specification.
a) black-box
b) white-box
c) grey-box
d) none of the mentioned

Answer: a
Explanation: The system is considered as a black box whose internal details are not known that is, only its visible external (input/output) behavior is documented.

156. Which of the following is included in SRS ?
a) Cost
b) Design Constraints
c) Staffing
d) Delivery Schedule

Answer: b
Explanation: Design constraints include standards to be incorporated in the software, implementation language, resource limits, operating environment etc.

157. Which of the following is not included in SRS ?
a) Performance
b) Functionality
c) Design solutions
d) External Interfaces

Answer: c
Explanation: The SRS document concentrates on:"what needs to be done" and carefully avoids the solution ("how to do") aspects.

158. Arrange the given sequence to form a SRS Prototype outline as per IEEE SRS Standard.
i. General description
ii. Introduction
iii. Index
iv. Appendices
v. Specific Requirements
a) iii, i, ii,v, iv
b) iii, ii, i, v, iv
c) ii, i, v, iv, iii
d) iii, i, ii

Answer: c
Explanation: The given sequence correctly resemble a standard SRS prototype as per IEEE.

159. Consider the following Statement: "The output of a program shall be given within 10 secs of event X 10% of the time."What characteristic of SRS is being depicted here ?
a) Consistent
b) Verifiable
c) Non-verifiable
d) Correct

Answer: b
Explanation: An SRS is verifiable, if and only if, every requirement stated therein is verifiable.Here the given condition can be verified during testing phase.

160. Consider the following Statement: "The data set will contain an end of file character."What characteristic of SRS is being depicted here ?
a) Consistent
b) Non-verifiable
c) Correct
d) Ambiguous

Answer: b
Explanation: An SRS is unambiguous if and only if, every requirement stated therein has only one unique interpretation. The given statement does not answer the question: "which data set will have an end of file character ?".

161. Consider the following Statement: "The product should have a good human interface."What characteristic of SRS is being depicted here ?
a) Consistent
b) Non-Verifiable
c) Correct
d) Ambiguous

Answer: b
Explanation: An SRS is verifiable, if and only if, every requirement stated therein is verifiable. The statement can only be answered on completion of the software and customer evaluation but still human interface will vary from person to person.

162. Narrative essay is one of the best types of specification document ?
a) True
b) False

Answer:b
Explanation: Narrative essay is one of the worst types of specification document as it is difficult to change, difficult to be precise, has scope for contradictions, etc.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Requirement Management".

161. Which two requirements are given priority during Requirement Management of a product ?
a) User and Developer
b) Functional and Non-functional
c) Enduring and Volatile
d) All of the mentioned

Answer: c
Explanation: Enduring requirements are core requirements & are related to main activity of the organization while volatile requirements are likely to change during software development life cycle or after delivery of the product.

162. Considering the example of issue/return of a book, cataloging etc. in a library management.What type of management requirement is being depicted here?
a) Enduring
b) Volatile
c) Both Enduring & Volatile
d) All of the mentioned

Answer: a
Explanation: For library management system issue/return of a book, cataloging etc. are core activities and are stable for any system.

163. Why is Requirements Management Important ? It is due to the changes
a) to the environment
b) in technology
c) in customer's expectations
d) in all of the mentioned.

Answer: d
Explanation: Systems continue to be built as the advancement of new products being launched in the market and so does the market changes, the technology and in turn customer's expectation.

164. Requirements Management is a prerequisite for Quality-Oriented Development.
a) True
b) False

Answer: a
Explanation: Quality makes no sense without reference to requirements, which means quality-oriented development is requirements-driven development, thus requirements management is a prerequisite for quality-oriented development.

165. Requirements traceability is one of the most important part requirement management. It may also be referred to as the heart of requirement management.
a) True
b) False

Answer: a
Explanation: Requirements traceability refers to the ability to describe and follow the life of a requirement in both forwards and backwards direction. Requirements can be traced from its origins, through its development and specification, to its subsequent deployment and use, and through periods of ongoing refinement and iteration in any of these phases.

166. Requirements Management has a high initial start-up cost but does not need ongoing funding throughout a project.
a) True
b) False

Answer: b
Explanation: Requirements Management needs continued funding throughout a project.Project funding is often limited at the onset of a project, restricted to those aspects of the project which are tangible and visible, and subsequently allocated in a phase-by-phase manner.

167. Which of the following is not a Requirement Management workbench tool?
a) RTM
b) DOORS
c) Rational Suite
d) RDD 100

Answer: c
Explanation: Rational Suite is an environment tool for requirement management.

168. Which of the following is a requirement management activity ?
a) Investigation

b) Design
c) Construction and Test
d) All of the mentioned

Answer: d
Explanation: All the options are the activities of requirement management.

169. What functionality of Requirement Management Tool (RMT) is depicted by the statement: "the tool should be able to automatically detect relations between artifacts. For example information retrieval techniques, monitoring of change history, naming schemas or model transformations."
a) Automatic Link Detection
b) Documentation Support
c) Graphical Representation
d) Automatic Link Creation and Change

Answer: a
Explanation: DOORS is one such tool that supports Automatic Link Detection.

170. According to a statistical report: "over 30% of all software projects are cancelled before completion and over 70% of the remainder fail to deliver expected features". What must be the reason for such a situation ?
a) Poor change management
b) Poor requirements management
c) Poor quality control
d) All of the mentioned

Answer: b
Explanation: Fundamental to the problem mentioned in the statistical report is poor requirements management. Option a and c are its sub parts.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "System Modelling – 1".

171. The Unified Modeling Language (UML) has become an effective standard for software modelling.How many different notations does it have ?
a) Three
b) Four
c) Six

d) Nine

Answer: d
Explanation: The different notations of UML includes the nine UML diagrams namely class, object, sequence, collaboration, activity, state-chart, component, deployment and use case diagrams.

172. Which model in system modelling depicts the dynamic behaviour of the system ?
a) Context Model
b) Behavioral Model
c) Data Model
d) Object Model

Answer: b
Explanation: Behavioral models are used to describe the dynamic behavior of an executing system. This can be modeled from the perspective of the data processed by the system or by the events that stimulate responses from a system.

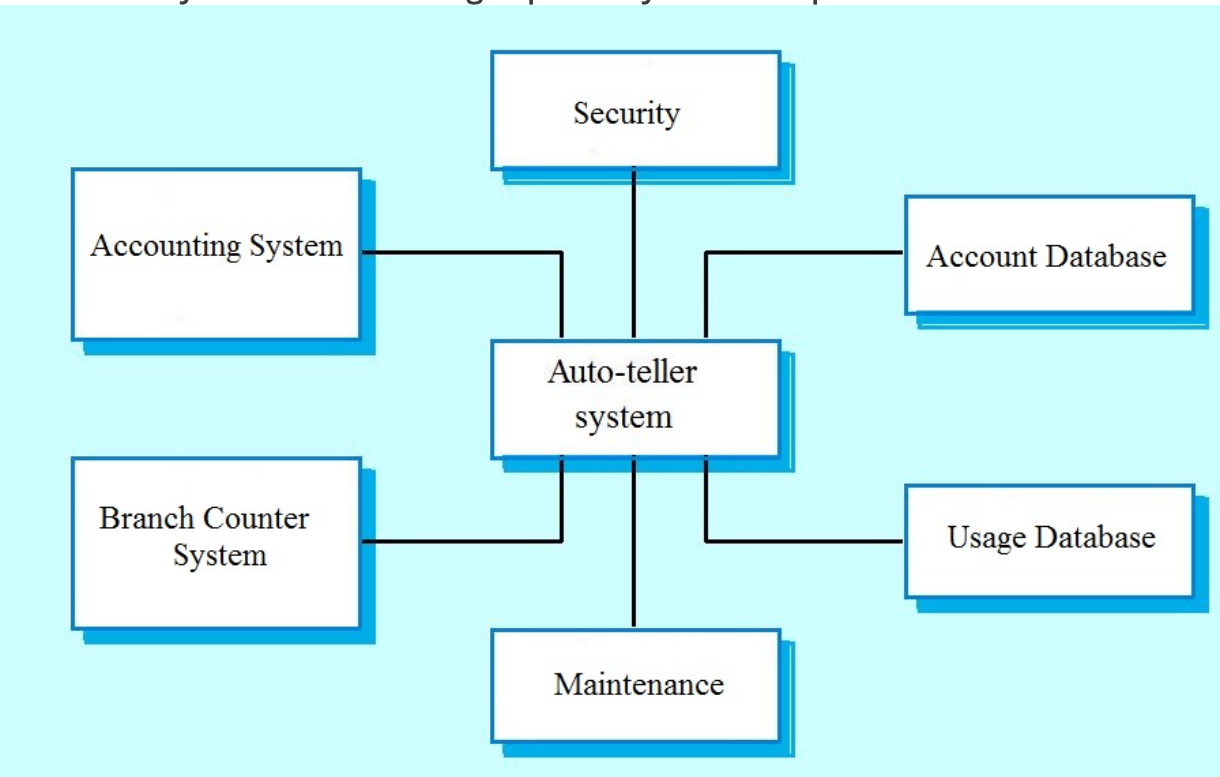
173. Which model in system modelling depicts the static nature of the system ?
a) Behavioral Model
b) Context Model
c) Data Model
d) Structural Model

Answer: d
Explanation: Structural models show the organization and architecture of a system. These are used to define the static structure of classes in a system and their associations.

174. Which perspective in system modelling shows the system or data architecture.
a) Structural perspective
b) Behavioral perspective
c) External perspective
d) All of the mentioned

Answer: a
Explanation: Structural perspective is used to define the static structure of classes in a system and their associations.

175. Which system model is being depicted by the ATM operations shown below:



a) Structural model
b) Context model
c) Behavioral model
d) Interaction model

Answer: b
Explanation: Context models are used to illustrate the operational context of a system.They show what lies outside the system boundaries.

176. Activity diagrams are used to model the processing of data.
a) True
b) False

Answer: a
Explanation: The statement mentioned is true and each activity represents one process step.

177. Model-driven engineering is just a theoretical concept. It cannot be converted into a working/executable code.
a) True
b) False

Answer: b
Explanation: Model-driven engineering is an approach to software development in which a system is represented as a set of models that can be automatically transformed to executable code.

178. The UML supports event-based modeling using _____ diagrams.
a) Deployment
b) Collaboration
c) State chart
d) All of the mentioned

Answer: c
Explanation: State diagrams show system states and events that cause transitions from one state to another.

This set of Software Engineering Questions and Answers for Experienced people focuses on “System Modelling – 2”.

181. Which of the following diagram is not supported by UML considering Data-driven modeling ?
a) Activity
b) Data Flow Diagram (DFD)
c) State Chart
d) Component

Answer: b
Explanation: DFDs focus on system functions and do not recognize system objects.

182. _____ allows us to infer that different members of classes have some common characteristics.
a) Realization
b) Aggregation
c) Generalization
d) dependency

Answer: c
Explanation: Generalization is an everyday technique that we use to manage complexity.This means that common information will be maintained in one place only.

183. One creates Behavioral models of a system when you are discussing and designing the system architecture.
a) True

b) False

Answer: b
Explanation: Structural models of software display the organization of a system in terms of the components that make up that system and their relationships.

184. _____ & _____ diagrams of UML represent Interaction modeling.
a) Use Case, Sequence
b) Class, Object
c) Activity, State Chart
d) All of the mentioned

Answer: a
Explanation: Use case modeling is mostly used to model interactions between a system and external actors.Sequence diagrams are used to model interactions between system components, although external agents may also be included.

185. Which level of Entity Relationship Diagram (ERD) models all entities and relationships ?
a) Level 1
b) Level 2
c) Level 3
d) Level 4

Answer: b
Explanation: Level 1 ERD models all data objects (entities) and their “connections” to one another while Level 3 ERD models all entities, relationships, and the attributes that provide further depth. Thus option b is correct.

186. _____ classes are used to create the interface that the user sees and interacts with as the software is used.
a) Controller
b) Entity
c) Boundary
d) Business

Answer: c
Explanation: The answer is self-explanatory.

187. Which of the following statement is incorrect regarding the Class-responsibility-collaborator (CRC) modeling ?
a) All use-case scenarios (and corresponding use-case diagrams) are organized into

categories in CRC modelling
b) The review leader reads the use-case deliberately
c) Only developers in the review (of the CRC model) are given a subset of the CRC model index cards
d) All of the mentioned

Answer: c
Explanation: All participants in the review (of the CRC model) are given a subset of the CRC model index cards.

188. A data object can encapsulates processes and operation as well.
a) True
b) False

Answer: b
Explanation: A data object encapsulates data only. There is no reference within a data object to operations that act on the data.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Dependability and Security".

191. A characteristic of a software system that can lead to a system error is known as?
a) Human error or mistake
b) System fault
c) System error
d) System failure

Answer: b
Explanation: None.

192. An erroneous system state that can lead to system behavior that is unexpected by system users is known as?
a) Human error or mistake
b) System fault
c) System error
d) System failure

Answer: c
Explanation: None.

193. An event that occurs at some point in time when the system does not deliver a service as expected by its users is called _____
a) Human error or mistake
b) System fault
c) System error
d) System failure

Answer: d
Explanation: None.

194. A chemical plant system may detect excessive pressure and open a relief valve to reduce these pressures before an explosion occurs. What kind of dependability and security issue the example states?
a) Hazard avoidance
b) Damage limitation
c) Hazard detection
d) Hazard detection and removal

Answer: d
Explanation: The system is designed so that hazards are detected and removed before they result in an accident.

195. An aircraft engine normally includes automatic fire extinguishers.What kind of dependability and security issue the example states?
a) Hazard avoidance
b) Damage limitation
c) Hazard detection
d) Hazard detection and removal

Answer: b
Explanation: The system may include protection features that minimize the damage that may result from an accident.

196. An assessment of the worst possible damage that could result from a particular hazard is known as
a) Risk
b) Hazard probability
c) Hazard severity
d) Mishap

Answer: c
Explanation: Hazard severity can range from catastrophic, where many people are killed, to minor, where only minor damage results. When an individual death is a possibility, a reasonable assessment of hazard severity is 'very high'.

197. which of the following terms is a measure of the probability that the system will cause an accident?
a) Risk
b) Hazard probability
c) Accident
d) Damage

Answer: a
Explanation: The risk is assessed by considering the hazard probability, the hazard severity, and the probability that the hazard will lead to an accident.

198. A weakness in a computer-based system that may be exploited to cause loss or harm is known as?
a) Vulnerability
b) Attack
c) Threat
d) Exposure

Answer: a
Explanation: None.

199. A password checking system that disallows user passwords that are proper names or words that are normally included in a dictionary is an example of _____ with respect to security systems.
a) risk
b) control
c) attack
d) asset

Answer: b
Explanation: A control protective measure that reduces a system's vulnerability.

200. The safety of a system is a system attribute that reflects the system's ability to operate, normally or abnormally, without injury to people or damage to the environment.
a) True
b) False

Answer: a
Explanation: None.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Software Design”.

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

Answer: c
Explanation: None.

202. Which tool is use for structured designing ?
a) Program flowchart
b) Structure chart
c) Data-flow diagram
d) Module

Answer: b
Explanation: A Structure Chart (SC) in software engineering and organizational theory, is a chart which shows the breakdown of a system to its lowest manageable levels.

203. A step by step instruction used to solve a problem is known as
a) Sequential structure
b) A List
c) A plan
d) An Algorithm

Answer: d
Explanation: None.

204. 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

Answer: c
Explanation: Program specification is the definition of what a computer program is expected to do.

205. Actual programming of software code is done during the _____ step in the SDLC.
a) Maintenance and Evaluation
b) Design
c) Analysis
d) Development and Documentation

Answer: d
Explanation: The developer has to find in the technical documentation enough information to start coding.

206. Who designs and implement database structures.
a) Programmers
b) Project managers
c) Technical writers
d) Database administrators

Answer: d
Explanation: The role of database administrators includes the development and design of database strategies, system monitoring and improving database performance and capacity, and planning for future expansion requirements.

207. _____ is the process of translating a task into a series of commands that a computer will use to perform that task.
a) Project design
b) Installation
c) Systems analysis
d) Programming

Answer: d
Explanation: None.

208. Debugging is:
a) creating program code
b) finding and correcting errors in the program code
c) identifying the task to be computerized
d) creating the algorithm

Answer: b
Explanation: Debugging is a methodical process of finding and reducing the number of bugs, or defects, in a computer program or a piece of electronic hardware, thus making it behave as expected.

209. In Design phase, which is the primary area of concern ?
a) Architecture
b) Data
c) Interface
d) All of the mentioned

Answer: d
Explanation: Part of the design phase is to create structural and behavioral models of the system which is covered by architecture, data and the interface of the product.

210. The importance of software design can be summarized in a single word which is:
a) Efficiency
b) Accuracy
c) Quality
d) Complexity

Answer: c
Explanation: Software functional quality reflects how well it complies with or conforms to a given design, based on functional requirements or specifications.

211. Cohesion 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 and the outside world

Answer: b
Explanation: Cohesion of a single module/component is the degree to which its responsibilities form a meaningful unit.

212. 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 and the outside world

Answer: d
Explanation: Coupling between modules/components is their degree of mutual interdependence.

213. _____ is a measure of the degree of interdependence between modules.
a) Cohesion
b) Coupling
c) None of the mentioned
d) All of the mentioned

Answer: b
Explanation: Coupling or dependency is the degree to which each program module relies on each one of the other modules.

214. Which of the following is the best type of module coupling?
a) Control Coupling
b) Stamp Coupling
c) Data Coupling
d) Content Coupling

Answer: c
Explanation: The dependency between module A and B is said to be data coupled if their dependency is based on the fact they communicate by only passing of data.

215. Which of the following is the worst type of module coupling?
a) Control Coupling
b) Stamp Coupling
c) External Coupling
d) Content Coupling

Answer: c
Explanation: Content coupling occurs when module A changes data of module B or when control is passed from one module to the middle of another.

216. Which of the following is the worst type of module cohesion?
a) Logical Cohesion
b) Temporal Cohesion
c) Functional Cohesion
d) Coincidental Cohesion

Answer: d
Explanation: Coincidental cohesion exists in modules that contain instructions that have little or no relationship to one another.

217. Which of the following is the best type of module cohesion?
a) Functional Cohesion
b) Temporal Cohesion
c) Functional Cohesion
d) Sequential Cohesion

Answer: a
Explanation: Functional Cohesion is a type of cohesion in which the tasks performed by a software module all contribute to the performance of a single function.

218. A software engineer must design the modules with the goal of high cohesion and low coupling.
a) True
b) False

Answer: a
Explanation: If the software is not properly modularized, a host of seemingly trivial enhancement or changes will result into death of the project.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Object Oriented Software Design – 1".

219. Choose the incorrect statement in terms of Objects.
a) Objects are abstractions of real-world
b) Objects can't manage themselves
c) Objects encapsulate state and representation information
d) All of the mentioned

Answer: b
Explanation: Objects are independent.

220. What encapsulates both data and data manipulation functions ?
a) Object
b) Class
c) Super Class
d) Sub Class

Answer: a
Explanation: None.

221. Which of the following is a mechanism that allows several objects in an class hierarchy to have different methods with the same name?
a) Aggregation
b) Polymorphism
c) Inheritance
d) All of the mentioned

Answer: b
Explanation: In polymorphism instances of each subclass will be free to respond to messages by calling their own version of the method.

222. Inherited object classes are self-contained.
a) True
b) False

Answer: b
Explanation: Inherited object classes are not self-contained. They cannot be understood without reference to their super-classes.

223. Which of the following points related to Object-oriented development (OOD) is true?
a) OOA is concerned with developing an object model of the application domain
b) OOD is concerned with developing an object-oriented system model to implement requirements
c) All of the mentioned
d) None of the mentioned

Answer: c
Explanation: The answer is in support with the OOD.

264 Iheritance
b) Polymorphism
c) Encapsulation
d) Abstract Classes

Answer: a
Explanation: None.

267. Which of the following is a disadvantage of OOD ?
a) Easier maintenance
b) Objects may be
understood as stand-alone entities
c) Objects are potentially reusable components

d) None of the mentioned

Answer: d
Explanation: All the options define the characteristics of OOD.

268. Which of the following describes"Is-a-Relationship" ?
a) Aggregation
b) Inheritance
c) Dependency
d) All of the mentioned

Answer: b
Explanation: None.

269. Object that collects data on request rather than autonomously is known as
a) Active Object
b) Passive Object
c) Multiple instance
d) None of the mentioned

Answer: b
Explanation: A passive object holds data, but does not initiate control.

270. Objects are executed
a) sequentially
b) in Parallel
c) sequentially & Parallel
d) none of the mentioned

Answer: c
Explanation: Objects may be distributed and may execute sequentially or in parallel.

This set of Software Engineering Interview Questions and Answers for Experienced people focuses on "Object Oriented Software Design – 2".

271. How many layers are present in the OO design pyramid?
a) three
b) four
c) five
d) one

Answer: b
Explanation: The four layers are: Subsystem layer, class and object layer, message layer and responsibilities layer

272. Which of the following early OOD methods incorporates both a "micro development process" and a "macro development process." ?
a) Booch method
b) Rumbaugh method
c) Wirfs-Brock method
d) Coad and Yourdon method

Answer: a
Explanation: The macro development process includes the architectural planning and micro developments process defines rules that govern the use of operations and attributes and the domain-specific
policies for memory management, error handling, and other infrastructure functions.

273. Grady Booch, James Rumbaugh, and Ivar Jacobson combined the best features of their individual object-oriented analysis into a new method for object oriented design known as
a) HTML
b) XML
c) UML
d) SGML

Answer: c
Explanation: The Unified Modeling Language (UML) has become
widely used throughout the industry as the standard approach to OOD.

274. A design description of an object is known as a class
a) instance
b) object
c) case
d) both instance and object

Answer: d
Explanation: None.

275. Which of the following is conceptually similar to objects?
a) PACKAGE
b) PROC
c) PRIVATE

d) None of the mentioned

Answer: a
Explanation: A package is a namespace that organizes a set of related classes and interfaces.

276. A design description in OOD includes
a) Protocol Description
b) Implementation Description
c) Type Description
d) both Protocol and Implementation Description

Answer: d
Explanation: None.

277. Which of the following is not an operation as per OOD algorithms and data structures?
a) operations that manipulate data in some way
b) operations that perform a computation
c) operations that check for syntax errors
d) operations that monitor an object for the occurrence of a controlling event

Answer: c
Explanation: Operations that check for syntax errors is concerned with the programming language used, so it will be handled by the compiler.

278. Throughout the OOD process, a software engineer should look for every opportunity for creating new design process.
a) True
b) False

Answer: b
Explanation: A software engineer should look for every opportunity to reuse existing design patterns whenever they meet the needs of the design rather than creating new ones.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Types of Software Metrics".

279. Which of the following is the task of project indicators:
a) help in assessment of status of ongoing project
b) track potential risk
c) help in assessment of status of ongoing project & track potential risk

d) none of the mentioned

Answer: c
Explanation: None.

280. Which of the following does not affect the software quality and organizational performance?
a) Market
b) Product
c) Technology
d) People

Answer: a
Explanation: Market is a collection of competitors, stakeholders, users each having different views on the product. So it does not affect the software quality.

283. The intent of project metrics is:
a) minimization of development schedule
b) for strategic purposes
c) assessing project quality on ongoing basis
d) minimization of development schedule and assessing project quality on ongoing basis

Answer: d
Explanation: A project metric is a quantitative measure of the degree to which a system, component or process possesses an attribute.

284. Which of the following is not a direct measure of SE process?
a) Efficiency
b) Cost
c) Effort Applied
d) All of the mentioned

Answer: a
Explanation: Efficiency is an indirect measure.

285. Which of the following is an indirect measure of product?
a) Quality
b) Complexity
c) Reliability
d) All of the Mentioned

Answer: d
Explanation: All the mentioned options are indirect measures of a product.

286. In size oriented metrics, metrics are developed based on the _____
a) number of Functions
b) number of user inputs
c) number of lines of code
d) amount of memory usage

Answer: c
Explanation: None.

287. Which of the following is not an information domain required for determining function point in FPA ?
a) Number of user Input
b) Number of user Inquiries
c) Number of external Interfaces
d) Number of errors

Answer: d
Explanation: FPA includes five domains namely input, output, inquiries, interface and logical files.

288. Usability can be measured in terms of:
a) Intellectual skill to learn the system
b) Time required to become moderately efficient in system usage
c) Net increase in productivity
d) All of the mentioned

Answer: d
Explanation: None.

289. A graphical technique for finding if changes and variation in metrics data are meaningful is known as
a) DRE (Defect Removal Efficiency)
b) Function points analysis
c) Control Chart
d) All of the mentioned

Answer: c
Explanation: Others options are formulas.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Metrics for Quality Control”.

291. Size and Complexity are a part of
a) Product Metrics
b) Process Metrics
c) Project Metrics
d) All of the mentioned

Answer: a
Explanation: Product Metrics describe the characteristics of product.

292. Cost and schedule are a part of
a) Product Metrics
b) Process Metrics
c) Project Metrics
d) All of the mentioned

Answer: c
Explanation: Project Metrics describe the project characteristics and execution.

293. Number of errors found per person hours expended is an example of a
a) measurement
b) measure
c) metric
d) all of the mentioned

Answer: c
Explanation: Metric is a quantitative measure of the degree to which a system, component, or process possesses a given attribute.

294. Which of the following is not categorized under Product Operation of McCall’s Software Quality Factors?
a) Flexibility
b) Reliability
c) Usability
d) Integrity

Answer: a
Explanation: Flexibility is a part of Product revision as per McCall’s Software Quality Factors.

295. The arc-to-node ratio is given as r = a/n. What does ‘a’ represent in the ratio?
a) maximum number of nodes at any level
b) longest path from the root to a leaf
c) number of modules
d) lines of control

Answer: d
Explanation: ‘a’ represents the arcs or the lines of control.

296. Which of the following is not categorized under Component-Level Design Metrics?
a) Complexity Metrics
b) Cohesion Metrics
c) Morphology Metrics
d) Coupling Metrics

Answer: c
Explanation: Morphology metrics are a part of High level design metrics.

297. Percentage of modules that were inspected is a part of
a) Product Metrics
b) Process Metrics
c) Project Metrics
d) All of the mentioned

Answer: b
Explanation: None.

298. Metric is the act of obtaining a measure.
a) True
b) False

Answer: b
Explanation: Measurement is the act of obtaining a measure.

299. MTTC falls the the category of
a) correctness
b) integrity
c) maintainability
d) all of the mentioned

Answer: c
Explanation: Mean time to change (MTTC) is the time it takes to analyze the change

request, design an appropriate modification, implement the change, test it, and distribute the change to all users.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Project Management”.

301. Which of the following is not project management goal?
a) Keeping overall costs within budget
b) Delivering the software to the customer at the agreed time
c) Maintaining a happy and well-functioning development team
d) Avoiding customer complaints

Answer: d
Explanation: Projects need to be managed because professional software engineering is always subject to organizational budget and schedule constraints.

302. Project managers have to assess the risks that may affect a project.
a) True
b) False

Answer: b
Explanation: Risk management involves anticipating risks that might affect the project schedule or the quality of the software being developed, and then taking action to avoid these risks.

303. Which of the following is not considered as a risk in project management?
a) Specification delays
b) Product competition
c) Testing
d) Staff turnover

Answer: c
Explanation: Testing is a part of project, thus it can’t be categorized as risk.

304. The process each manager follows during the life of a project is known as
a) Project Management
b) Manager life cycle
c) Project Management Life Cycle
d) All of the mentioned

Answer: c
Explanation: A proven methodical life cycle is necessary to repeatedly implement and manage projects successfully.

305. A 66.6% risk is considered as
a) very low
b) low
c) moderate
d) high

Answer: d
Explanation: The probability of the risk might be assessed as very low (<10%), low (10–25%), moderate (25–50%), high (50–75%), or very high (>75%).

306. Which of the following is/are main parameters that you should use when computing the costs of a software development project?
a) travel and training costs
b) hardware and software costs
c) effort costs (the costs of paying software engineers and managers)
d) all of the mentioned

Answer: d
Explanation: Estimation involves working out how much effort is required to complete each activity and, from this, calculating the total cost of activities.

307. Quality planning is the process of developing a quality plan for
a) team
b) project
c) customers
d) project manager

Answer: b
Explanation: The quality plan should set out the desired software qualities and describe how these are to be assessed.

308. Which of the following is incorrect activity for the configuration management of a software system?
a) Internship management
b) Change management
c) Version management
d) System management

Answer: a
Explanation: Configuration management policies and processes define how to record and process proposed system changes, how to decide what system components to change, how to manage different versions of the system and its components, and how to distribute changes to customers.

309. Identify the sub-process of process improvement
a) Process introduction
b) Process analysis
c) De-processification
d) Process distribution

Answer: b
Explanation: The current process is assessed, and process weaknesses and bottlenecks are identified.

310. An independent relationship must exist between the attribute that can be measured and the external quality attribute.
a) True
b) False

Answer: b
Explanation: The value of the quality attribute must be related, in some way, to the value of the attribute than can be measured.

This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on "Size and Cost Estimation of Software".

311. Which of the following are parameters involved in computing the total cost of a software development project?
a) Hardware and software costs
b) Effort costs
c) Travel and training costs
d) All of the mentioned

Answer: d
Explanation: All these are accounted for in estimating a software development cost.

312. Which of the following costs is not part of the total effort cost?
a) Costs of networking and communications
b) Costs of providing heating and lighting office space

c) Costs of lunch time food
d) Costs of support staff

Answer: c
Explanation: This is a incurred by the employees.

313. What is related to the overall functionality of the delivered software?
a) Function-related metrics
b) Product-related metrics
c) Size-related metrics
d) None of the mentioned

Answer: a
Explanation: Productivity is expressed in terms of the amount of useful functionality produced in some given time. Function points and object points
are the best-known metrics of this type.

324. A _____ is developed using historical cost information that relates some software metric to the project cost.
a) Algorithmic cost modelling
b) Expert judgement
c) Estimation by analogy
d) Parkinson's Law

Answer: a
Explanation: The model uses a basic regression formula with parameters that are derived from historical project data and current as well as future project characteristics.

325. It is often difficult to estimate size at an early stage in a project when only a specification is available
a) True
b) False

Answer: a
Explanation: Function-point and object-point estimates are easier to produce than estimates of code size but are often still inaccurate.

326. Which technique is applicable when other projects in the same analogy application domain have been completed?
a) Algorithmic cost modelling
b) Expert judgement
c) Estimation by analogy

d) Parkinson’s Law

Answer: c
Explanation: The cost of a new project is estimated by analogy with these completed projects.

327. Which model assumes that systems are created from reusable components, scripting or database programming?
a) An application-composition model
b) A post-architecture model
c) A reuse model
d) An early design model

Answer: a
Explanation: It is designed to make estimates of prototype development.

328. Which of the following states that work expands to fill the time available.
a) CASE tools
b) Pricing to win
c) Parkinson’s Law
d) Expert judgement

Answer: c
Explanation: The cost is determined by available resources rather than by objective assessment. If the software has to be delivered in 12 months and 5 people are available, the effort required is estimated to be 60 person-months.

329. Which model is used during early stages of the system design after the requirements have been established?
a) An application-composition model
b) A post-architecture model
c) A reuse model
d) An early design model

Answer: d
Explanation: Estimates are based on function points, which are then converted to number of lines of source code. The formula follows the standard form discussed above with a simplified set of seven multipliers.

320. Which model is used to compute the effort required to integrate reusable components or program code that is automatically generated by design or program translation tools?
a) An application-composition model

b) A post-architecture model
c) A reuse model
d) An early design model

Answer: c
Explanation: None.

321. The COCOMO model takes into account different approaches to software development, reuse, etc.
a) True
b) False

Answer: b
Explanation: Its the COCOMO-2 model. COCOMO 2 incorporates a range of sub-models that produce increasingly detailed software estimates.