



Unit 1 :Introduction to System Concept

Q:1) _____ is an orderly grouping of independent components linked together according to a plan to achieve a specific objective or goal.

Sol: description here

- A:) System
- B:) Software
- C:) Subsystem
- D:) Physical system

Correct:A

Q:2)A -----is a set or group of component that interact to accomplish some purpose.

Sol: description here

- A:) System
- B:) Software
- C:) Subsystem
- D:) Physical system

Correct:A

Q:3)System consists of-----

Sol: description here

- A:) Standards
- B:) Measurement
- C:) Compare
- D:) All of above



Correct:D

Q:4) Elements of system.

Sol: description here

- A:) Output/Input
- B:) Control
- C:) Feedback
- D:) All of above

Correct:D

Q:5) We can define information system as a set of devices, procedures, rules but most of the work performs manually

Sol: description here

- A:) Formal Information system
- B:) Manmade Information system
- C:) Informal information system
- D:) All of above

Correct:B

Q:6) What are the characteristics of software?

Sol: description here

- A:) Software is developed or engineered; it is not manufactured in the classical sense.
- B:) Software doesn't " wear out ".
- C:) Software can be custom built or custom build.
- D:) All mentioned above



Correct:D

Q:7) Compilers, Editors software come under which type of software?

Sol: description here

- A:) System software
- B:) Application software
- C:) Scientific software
- D:) None of the above

Correct:B

Q:8)----- refers to the process of examining a business situation with the intent of improving it through better procedures and methods.

Sol: description here

- A:) Software Anticipation
- B:) Software Investigation
- C:) Software Requirement
- D:) System analysis

Correct:D

Q:9)The process of generating analysis and design documents is known as

Sol: description here

- A:) Software engineering
- B:) Software re-engineering



- C:) Reverse engineering
- D:) Re-engineering

Correct:C

Q:10)Which is the first step in the software development life cycle ?

Sol: description here

- A:) Analysis
- B:) Design
- C:) Problem/Opportunity Identification
- D:) Development and Documentation

Correct:C

Q:11)Decision makers who are concerned with tactical (short-term) operational problems and decision making are

Sol: description here

- A:) middle managers
- B:) executive managers
- C:) supervisors
- D:) mobile managers

Correct:A

Q:12)A turnaround output is an example of

Sol: description here

- A:) internal output
- B:) external output
- C:) summary output
- D:) exception output



Correct:B

Q:13)Critical information for top management is provided by information system.

Sol: description here

- A:) expert
- B:) managerial
- C:) executive
- D:) decision

Correct:C

Q:14)_____ expressly designed for the support of individual and collective decision making.

Sol: description here

- A:) MIS
- B:) DSS
- C:) TPS
- D:) OIS

Correct:B

Q:15)-----The system which are represented conceptually non Physical systems are called

Sol: description here

- A:) Abstract system
- B:) System model
- C:) Open system
- D:) Closed system

Correct:A



Q:16)-----it shows a two dimensional depicting system elements and their linkages.

Sol: description here

- A:) Schematic Models
- B:) Flow system models
- C:) Static system models
- D:) Dynamic system models

Correct:A

Q:17)-----It shows the flow of material ,energy and information that hold system together.

Sol: description here

- A:) Schematic Models
- B:) Flow system models
- C:) Static system models
- D:) Dynamic system models

Correct:B

Q:18)----- This type of model exhibits are pair of relationship such as activity time or cost quantity.

Sol: description here

- A:) Schematic Models
- B:) Flow system models
- C:) Static system models
- D:) Dynamic system models

Correct:C

Q:19)----- It depict constantly an ongoing constantly changing the system

Sol: description here



- A:) Schematic Models
- B:) Flow system models
- C:) Static system models
- D:) Dynamic system models

Correct:D

Q:20) An -----system is a one which does not provide for its own control or modification.

Sol: description here

- A:) Open System
- B:) Closed system
- C:) MIS
- D:) DIS

Correct:A

Q:21)-----system in one which automatically controls or modifies its own operation by responding to data generated by the system itself.

Sol: description here

- A:) Open System
- B:) Closed system
- C:) MIS
- D:) DIS

Correct:B

Q:22)-----is represented by organization chart.

Sol: description here

- A:) Formal Information system
- B:) Closed system



C:) MIS

D:) DIS

Correct:A

Q:23)-----systems used organizational data as well as external data collected from environment of the organization.

Sol: description here

A:) Formal Information system

B:) Closed system

C:) MIS

D:) DSS

Correct:D

Q:24)Effectiveness is a major goal of these types of systems.

Sol: description here

A:) Expert systems

B:) Closed system

C:) MIS

D:) DSS

Correct:A

Q:25)-----system operates continuously to keep management abreast of what is happening in all major areas

Sol: description here



- A:) Execution Information system(EIS)
- B:) Integrated system
- C:) Subsystem
- D:) Transaction processing system

Correct:A

Q:26)-----consists of individual computers may be workstations or multiple systems.

Sol: description here

- A:) Execution Information system(EIS)
- B:) Integrated system
- C:) Subsystem
- D:) Transaction processing system

Correct:B

Q:27)-----is a unit that is part of a larger system that means a larger system divided into subparts the subpart is known as -----

Sol: description here

- A:) Execution Information system(EIS)
- B:) Integrated system
- C:) Subsystem
- D:) Transaction processing system

Correct:C

Q:28)-----system collect,store,modify and retrieve the transaction of an organization.



Sol: description here

- A:) Execution Information system(EIS)
- B:) Integrated system
- C:) Subsystem
- D:) Transaction processing system

Correct:D

Q:29)-----is concerned with how a systems tied together in order to achieve common goal thus forming integration.

Sol: description here

- A:) Interaction
- B:) Interdependence
- C:) Integration
- D:) Central Objective

Correct:C

Q:30) -----means that parts of the organization depend on one another

Sol: description here

- A:) Interaction
- B:) Interdependence
- C:) Integration
- D:) Central Objective

Correct:B

Q:31) Which one of the following is not a step of requirement engineering?

Sol: description here



- A:) elicitation
- B:) design
- C:) analysis
- D:) documentation

Correct:C

Q:32)-----is a first technical step in software process.

Sol: description here

- A:) Software Anticipation
- B:) Software Investigation
- C:) Software Requirement
- D:) None of Above

Correct:D

Q:33)----- refers to the process of examining a business situation with the intent of improving it through better procedures and methods.

Sol: description here

- A:) Software Anticipation
- B:) Software Investigation
- C:) Software Requirement
- D:) System analysis

Correct:A

Q:34)What are the four dimensions of Dependability?

Sol: description here

- A:) Usability, Reliability, Security, Flexibility
- B:) Availability, Reliability, Maintainability, Security
- C:) Availability, Reliability, Security, Safety
- D:) Security, Safety, Testability, Usability



Correct:B

Q:35)System analyst consist of following tasks:

Sol: description here

- A:) Problem identification
- B:) Problem understanding
- C:) Analysis Problem
- D:) All of the above

Correct:A

Q:36)----- it include the study like can the work for the project is done with current equipment existing software technology and with available manpower.

Sol: description here

- A:) Technical feasibility
- B:) Economic feasibility
- C:) Operational feasibility
- D:) None of above

Correct:B

Q:37)----- it include of study of cost of system.

Sol: description here

- A:) Technical feasibility
- B:) Economic feasibility
- C:) Operational feasibility
- D:) None of above

Correct:C

Q:38)----- it include system be used if it developed and implemented.



Sol: description here

- A:) Technical feasibility
- B:) Economic feasibility
- C:) Operational feasibility
- D:) None of above

Correct:A

Q:39) Analyst used ----- method to collect information from individual or from group.

Sol: description here

- A:) Interviews
- B:) Questionnaires.
- C:) Record inspection or view
- D:) Observations

Correct:A

Q:40)Analyst used ----- method to collect information from person by asking standard question to person or group of person.

Sol: description here

- A:) Interviews
- B:) Questionnaires.
- C:) Record inspection or view
- D:) Observations

Correct:A

Q:41) ----- interviews use of standardized question in either an open response or close response format.

Sol: description here



- A:) Unstructured Interviews.
- B:) Structured Interviews
- C:) Questionnaires.
- D:) Record inspection or view

Correct:B

Q:42)----- may be inefficient use of both respondent and interviewer time.

Sol: description here

- A:) Unstructured Interviews.
- B:) Structured Interviews
- C:) Questionnaires.
- D:) Record inspection or view

Correct:A

Q:43)Analyst use -----to learn about feelings, opinions and general experiences or to explore a process or problems.

Sol: description here

- A:) open ended questionnaires
- B:) Close ended questionnaires
- C:) Record Inspection
- D:) Observation

Correct:A

Q:44)----- controlled the frame of reference by presenting respondent with specific responses from which to select.

Sol: description here

- A:) open ended questionnaires
- B:) Close ended questionnaires



- C:) Record Inspection
- D:) Observation

Correct:

Q:45)In ----- analyst examines information that has been recorded about system and about the users.

Sol: description here

- A:) Record Review
- B:) Interviews
- C:) Questionnaires
- D:) Observation

Correct:B

Q:46)The ----- is produced at the culmination of the analysis task.

Sol: description here

- A:) Software requirement specification
- B:) Questionnaires
- C:) Record Inspection
- D:) None of these

Correct:A

Q:47)Software is defined as _____

Sol: description here

- A:) Instructions
- B:) Data Structures



- C:) Documents
- D:) All of the above

Correct:D

Q:48)The objective of software engineering is to produce -----

- A:) Software Product
- B:) Output
- C:) Input
- D:) Processing

Correct:A

Q:49)----- are software systems delivered to customer with the documentation which describes how to install and use the system.

- A:) Software Product
- B:) Output
- C:) Input
- D:) Processing

Correct:A

Q:50)----- These are stand-alone systems which are produced by a development organization and sold on the open market to any customer who is able to buy them.

- A:) Generic Product
- B:) Customized product
- C:) Product
- D:) None of these



Correct:A





Unit 2 Requirement Analysis

Q:1)----- these are systems which are commissioned by a particular customer.

- A:) Generic Product
- B:) Customized product
- C:) Product
- D:) None of these**

Correct: D

Q:2) ----- component should be designed and implemented so that it can be reused in many different programs.

- A:) Reusability**
- B:) Effectiveness
- C:) Flexibility
- D:) None of these

Correct: A

Q:3)A primary goal of software engineering is to improve the -----and to increase the productivity and job satisfaction of software engineers.

- A:) Quality of software product**
- B:) Satisfaction of product
- C:) Flexibility
- D:) None of these

Correct: A



Q:4) A fundamental Principal of software engineering is to design software products that minimize the intellectual distance between ----- and solution.

- A:) **Method**
- B:) Process
- C:) Product
- D:) Problem

Correct: A

Q:5) ----- is outgrowth of hardware and system engineering.

- A:) Software engineering
- B:) **Requirement engineering**
- C:) System engineering
- D:) None of these

Correct:B

Q:6)----- provide automated or semi-automated support for methods.

- A:) **Software engineering tools**
- B:) Software engineering Procedures
- C:) Software engineering Methods
- D:) None of these

Correct: A

Q:7) ----- encompass a broad array of tasks that include project planning and estimation system analysis, design of data structure, program architecture, coding, testing and maintenance.



- A:) **Software engineering tools**
- B:) Software engineering Procedures
- C:) Software engineering Methods
- D:) None of these

Correct: A

Q:8)----- are the glue that holds the methods and tools together and they enable rational and timely development of computer software.

- A:) Software engineering tools
- B:) Software engineering Procedures
- C:) Software engineering Methods
- D:) None of these**

Correct :D

Q:9)Software engineering needed for building -----systems in a timely manner with high quality.

- A:) Software**
- B:) Hardware
- C:) Process
- D:) All of above

Correct: A

Q:10)software engineering is a -----

- A:) Graphical technology**
- B:) Layered technology



- C:) Paired technology
- D:) Electrical technology

Correct: A

Q:11)----- provides the technical how to building software.

- A:) Software engineering tools
- B:) Software engineering Procedures
- C:) Software engineering Methods**
- D:) None of these

Correct :C

Q:12)Software is -----

- A:) Developed
- B:) Manufactured**
- C:) Non manufactured
- D:) None of these

Correct:B

Q:13)Software does not-----

- A:) Engineered**
- B:) Developed
- C:) Maintained
- D:) Wear out

Correct: A



Q:14) ----- consists of a means of monitoring the software engineering processes and methods used to ensure quality.

- A:) Software quality assurance
- B:) Software quality product**
- C:) Software requirement
- D:) Software specification

Correct:B

Q:15) In McCall's software quality factors, Product operation phase ----not contains.

- A:) Correctness
- B:) Reliability
- C:) Usability**
- D:) Flexibility

Correct :C

Q:16) In McCall's software quality factors, Product revision phase ----not contains.

- A:) Maintainability**
- B:) Flexibility
- C:) Testability
- D:) Portability

Correct: A

Q:17)In McCall's software quality factors, Product transition phase ----not contains

- A:) Portability
- B:) Reusability
- C:) Interoperability
- D:) Testability**



Correct :D

Q:18) ----- it includes the steps of maintenance phase of software.

- A:) **Maintainability**
- B:) Flexibility
- C:) Testability
- D:) Portability

Correct: A

Q:19) The property of software in which software product may be adapted to changes of specifications.

- A:) Maintainability
- B:) Flexibility
- C:) Testability
- D:) Portability**

Correct :D

Q:20) It is the ability of software system to protect their various components against unauthorized access and modification.

- A:) Correctness
- B:) Reliability
- C:) Usability
- D:) Integrity**

Correct :D

Q:21)----- is the probability that the software will operate correctly over specified time interval.

- A:) Correctness



- B:) Reliability
- C:) Usability
- D:) Flexibility**

Correct :D

Q:22) -----will be able to interface it with another system.

- A:) Correctness**
- B:) Interoperability
- C:) Usability
- D:) Flexibility

Correct: A

Q:23) ----- the ease with which conformance to standards can be checked.

- A:) Correctness
- B:) Auditability**
- C:) Usability
- D:) Flexibility

Correct:B

Q:24) ----- The degree to which standard interfaces protocols and bandwidth are used.

- A:) Correctness
- B:) Communication commonality
- C:) Usability
- D:) Flexibility**

Correct :D



Q:25)----- The compactness of the program in terms of lines of code.

- A:) **Conciseness**
- B:) Consistency
- C:) Data commonality
- D:) Error tolerance

Correct: A

Q:26) -----The use of uniform design and documentation techniques throughout the software development project.

- A:) Conciseness
- B:) **Consistency**
- C:) Data commonality
- D:) Error tolerance

Correct:B

Q:27)----- The use of standard data structures and types throughout the program.

- A. Conciseness
- B. Consistency
- C. **Data commonality**
- D. Error tolerance

Q:28)----- the degree to which the software assists in enabling new users to apply the system.

- A. **Training**
- B. Traceability



- C. Simplicity
- D. Security

Correct: A

Q:29)----- The degree to which the source code provides meaningful documentation.

- A. Self-documentation**
- B. Training
- C. Traceability
- D. Simplicity

Correct: A

Q:30) ----- The damage that occurs when the program encounters an error.

- A. Error tolerance**
- B. Training
- C. Traceability
- D. simplicity

Correct: A

Q:31)----- The functional independence of program componets.

- A. Error tolerance
- B. Training
- C. Modularity**
- D. Simplicity

Correct :C

Q:32)----- The degree to which full implementation of required function has been achieved.



- A. Error tolerance
- B. Training
- C. **Completeness**
- D. Simplicity

Correct :C

Q:34)Pick up the odd one out of the following process models

- A. Component assembly model
- B. Prototyping Model
- C. Spiral model
- D. **Waterfall Model**

Correct:D

Q:35)The Linear Sequential or Classic Life Cycle is also called

- A. **Waterfall Model**
- B. Incremental Model
- C. Spiral model
- D. Prototyping Model

Correct: A

Q:36) The waterfall model of the software process considers each process activity as a _____ phase

- A. separate
- B. discrete
- C. **Both a and b options**



D. None of the above

Correct C

Q:37)In Boehm's spiral model, each loop in the spiral represents _____ of the software process

- A. **phase**
- B. design
- C. documentation
- D. none of the above

Correct: A

Q:38)In the Spiral model the radius of the spiral at any point represents

- A. the level of risk
- B. the progress made in the current phase
- C. **the cost incurred in the project till then**
- D. None of these

Q:39) Oldest paradigm for software engineering is

- A. Incremental process model
- B. RAD model
- C. **Waterfall model**
- D. None of above

Q:40)In incremental process model, some high end function are designed in

- A. Construction framework
- B. **Modeling framework**
- C. Planning framework
- D. Deployment framework



Correct:B

Q:41) RAD stands for

- A. Relative Application Development
- B. Rapid Application Development**
- C. Rapid Application Document
- D. None of the mentioned

Correct :B

Q:42) 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**

Correct :D

Q:43) Which is not one of the types of prototype of Prototyping Model?

- A. Horizontal Prototype
- B. Vertical Prototype
- C. Diagonal Prototype**
- D. Domain Prototype

Correct :C

Q:44)Which one of the following is not a phase of Prototyping Model?

- A. Quick Design
- B. Coding**
- C. Prototype Refinement
- D. Engineer Product

Correct:B



Q:45)RAD Model has

- A. 2 phases
- B. 3 phase
- C. 5 phases**
- D. 6 phases

Correct :C

Q:46) 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**

Correct : D

Q:47)SDLC stands for

- A. Software Development Life Cycle**
- B. System Development Life cycle
- C. Software Design Life Cycle
- D. System Design Life Cycle

Correct :A

Q:48)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

Correct:C



Q:49) 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**

Correct:D

Q:50)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

Correct :C



Unit 3 Introduction to software engineering

Q:1) 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

Correct: A

Q:2)The spiral model was originally proposed by

- A. IBM
- B. **Barry Boehm**
- C. Pressman
- D. Royce

Correct:B

Q:3) The spiral model has two dimensions namely _____ and _____

- A. diagonal, angular
- B. radial, perpendicular
- C. **radial, angular**
- D. diagonal, perpendicular

Correct:C

Q:4) 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

Correct:B

Q:5)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

Correct: A

Q:6) Spiral Model has user involvement in all its phases.

- A. True
- B. False**

Correct:B

Q:7) 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

Correct: A

Q:8)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

Correct:C

Q:9)A company is developing an advance version of their current software available in the market, what model approach would they prefer ?

- A. RAD
- B. Iterative Enhancement
- C. Both RAD & Iterative Enhancement**
- D. Spiral

Correct:C

Q:10)One can choose Waterfall Model if the project development schedule is tight.

- A. True
- B. False**

Correct:B

Q:11)Spiral Model has high reliability requirements.

- A. True**
- B. False

Correct: A

Q:12)RAD Model has high reliability requirements.

- A. True



B. False

Correct:B

Q:13) If you were a lead developer of a software company and you are asked to submit a project/product within a stipulated time-frame with no cost barriers, which model would you select?

- A. Waterfall
- B. Spiral
- C. RAD**
- D. Incremental

Correct:C

Q:14) Which of the following life cycle model can be chosen if the development team has less experience on similar projects?

- A. Spiral**
- B. Waterfall
- C. RAD
- D. Iterative Enhancement Model

Correct: A



Q:15) This set of Software Engineering Multiple Choice Questions & Answers (MCQs) focuses on “Selection of a Life Cycle Model”.

- A. Requirements
- B. Development team & Users
- C. Project type and associated risk
- D. All of the mentioned**

Correct:D

Q:16) Selection of a model is based on

- A. Requirements**
- B. Development team & Users
- C. Project type and associated risk
- D. All of the mentioned

Correct: A

Q:17) Which of the following life cycle model can be chosen if the development team has less experience on similar projects?

- A. Spiral**
- B. Waterfall
- C. RAD
- D. Iterative Enhancement Model

Correct: A

Q:18) Which two models doesn't allow defining requirements early in the cycle?

- A. Waterfall & RAD
- B. Prototyping & Spiral**
- C. Prototyping & RAD
- D. Waterfall & Spiral



Correct: B

Q:19) A model that is the demo implementation of the system.

- A. waterfall
- B. prototype**
- C. incremental
- D. agile

Correct: B

Q:20) Maintenance is the final phase in waterfall model.

- A. True**
- B. False

Correct: A

Q:21) A stage in which individual components are integrated and ensured that they are error-free to meet customer requirements.

- A. Coding
- B. Testing**
- C. Design
- D. Implementation

Correct: B

Q:22) Methodology in which project management processes were step-by step.

- A. Incremental
- B. Waterfall**



- C. Spiral
- D. Prototyping

Correct: B

Q:23) ER diagram is a -----tool

- A. Design**
- B. Coding
- C. Testing
- D. None of above

Correct: A

Q:24) ER diagram is a _____ of the database system which provides high level conceptual data model and supports the users perception of the data.

- A. Graphical representation**
- B. Hierarchical representation
- C. Both of these
- D. None above these

Correct: A

Q:25) _____ is an object in to real world that is distinguishable from all other objects

- A. Entity**
- B. Attribute
- C. Both
- D. None



Correct: A

Q:26) _____ is set of entities of the same type that share the same properties attributes.

- A. **Entity**
- B. Attribute
- C. Both
- D. None

Correct: A

Q:27) Each entity has a set of _____

- A. Entity
- B. **Attribute**
- C. Row
- D. None

Correct:B

Q:28) _____ attributes cannot be divided into subparts

- A. **Simple**
- B. Composite
- C. Single valued
- D. Multivalued

Correct: A

Q:29) _____ attributes can be divided into subparts.

- A. Simple
- B. **Composite**



- C. Single valued
- D. Multivalued

Correct:B

Q:30)_____attribute has single value for a particular entity.

- A. Simple
- B. Composite
- C. Single valued**
- D. multivalued

Q:31)_____attribute has a set of values for a specific entity.

- A. Simple
- B. Composite
- C. Single valued
- D. multivalued**

Q:32)_____entity does not have a value for an attribute.

- A. Null**
- B. Composite
- C. Single valued
- D. multivalued

Correct: A

Q:33)_____ represent entity set.

- A. Ellipses
- B. Rectangles**
- C. Diamonds



D. Lines

Correct:B

Q:34)_____ represent attributes

- A. **Ellipses**
- B. Rectangles
- C. Diamonds
- D. Lines

Correct: A

Q:35)_____ represent relationship set.

- A. Ellipses
- B. Rectangles
- C. **Diamonds**
- D. Lines

Correct :C

Q:36)_____ represent multi-valued attribute.

- A. **Double ellipse**
- B. Dashed ellipse
- C. Diamonds
- D. Lines

Correct: A

Q:37)_____ represent derived attribute.

- A. Double ellipse
- B. **Dashed ellipse**



- C. Diamonds
- D. Lines

Correct:B

Q:38)_____represent weak entity set.

- A. Double ellipse
- B. Dashed ellipse
- C. Double rectangle**
- D. Lines

Correct :C

Q:39) A _____ is a decision support tool that uses a tree-like graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility.

- A. Decision tree**
- B. Graphs
- C. Trees
- D. Neural Networks

Correct: A

Q:40) What is Decision Tree?

- A. Flow-Chart
- B. Structure in which internal node represents test on an attribute, each branch represents outcome of test and each leaf node represents class label
- C. Flow-Chart & Structure in which internal node represents test on an attribute, each branch represents outcome of test and each leaf node represents class label**
- D. None of the mentioned

Correct :C



Q:41) Decision Tree is a display of an algorithm.

- A. True
- B. False

Correct: A

Q:42) Choose from the following that are Decision Tree nodes?

- A. Decision Nodes
- B. End Nodes**
- C. Chance Nodes
- D. All of the mentioned

Correct:B

Q:43) Decision Nodes are represented by _____

- A. Disks
- B. Squares**
- C. Circles
- D. Triangles

Correct:B

Q:44)Chance Nodes are represented by _____

- A. Disks
- B. Squares
- C. Circles**
- D. Triangles

Correct :C

Q:45) End Nodes are represented by _____



- A. Disks
- B. Squares
- C. Circles
- D. Triangles**

Correct :D

Q:46) Which of the following are the advantage/s of Decision Trees?

- A. Possible Scenarios can be added
- B. Use a white box model, If given result is provided by a model
- C. Worst, best and expected values can be determined for different scenarios
- D. All of the mentioned**

Correct :D

Q:47) Decision table made up of section.

- A. Condition statement
- B. Condition statements
- C. Action statements
- D. All of these**

Correct:D

Q:48) _____ is a graphic representation of system that shows data flows to from and within system, processing functions that change the data in some manner and storage of tis data.

- A. DFD**
- B. ER model
- C. Decision table
- D. Decision Tree

Correct: A



Q:49) DFD shows how things happen or the physical component is called -----

- A. Logical DFD
- B. Physical DFD
- C. Data dictionary
- D. None of these

Correct: A

Q:50) A relational database system needs to maintain data about the relations, such as the schema of the relations. This is called

- A. Metadata
- B. Catalog
- C. Log
- D. Dictionary

Correct: A



Unit Q:4) Software Development Methodologies

Q:1) Relational schemas and other metadata about relations are stored in a structure called the _____

- A. Metadata
- B. Catalog
- C. Log
- D. Data Dictionary**

Correct:D

Q:2).A data dictionary is created when a _____ created.

- A. Instance
- B. Segment
- C. Database**
- D. Dictionary

Correct :C

Q:3) Keep the statement language _____ while writing a pseudo code.

- A. Dependent
- B. Independent**
- C. Case sensitive
- D. Capitalized

Correct:B

Q:4)Capitalize initial keyword – This is a rule while writing a pseudo code.

- A. True**
- B. False

Correct: A



Q:5) Which of the following is not a keyword?

- A. Read
- B. Write
- C. start**
- D. endif

Q:6) _____ is used to show hierarchy in a pseudo code.

- A. Indentation**
- B. Curly Braces
- C. Round Brackets
- D. Semicolon

Correct: A

Q:7) structured design was developed by ----- and -----.

- A. ED Yourdon and Larry constatine**
- B. By codd
- C. All of these
- D. None of these

Correct: A

Q:8) In specific design process activites are:

- A. Architectural design.
- B. Abstract specification
- C. Interface design
- D. All of these**



Correct :D

Q:9)_____ is the separation of a function contained as code in one module into a new module of its own.

- A. Factoring
- B. Fan-in
- C. Fan-out
- D. System shape

Correct: A

Q:10)_____ it is a module where the number of immediate bosses it has.

- A. Factoring
- B. Fan-in
- C. Fan-out
- D. System shape

Correct :B

Q:11)Modules with _____ must have good cohesion.

- A. Factoring
- B. Fan-in
- C. Fan-out
- D. System shape

Correct :B

Q:12) Which of the property of software modularity is incorrect with respect to benefits software modularity?

- A. Modules are robust
- B. Module can use other modules



- C. Modules Can be separately compiled and stored in a library
- D. Modules are mostly dependent**

Correct :D

Q:13) _____ is a measure of the degree of interdependence between modules.

- A. Cohesion
- B. Coupling**
- C. None of the mentioned
- D. All of the mentioned

Correct :B

Q:14)Which of the following is the best type of module coupling?

- A. Control Coupling
- B. Stamp Coupling
- C. Data Coupling**
- D. Content Coupling

Correct:C

Q:15)Which of the following is the worst type of module coupling?

- A. Control Coupling
- B. Stamp Coupling
- C. External Coupling**
- D. Content Coupling

Correct :C

Q:16) Which of the following is the worst type of module cohesion?



- A. Logical Cohesion
- B. Temporal Cohesion
- C. Functional Cohesion
- D. Coincidental Cohesion**

Correct :D

Q:17) Which of the following is the best type of module cohesion?

- A. Functional Cohesion**
- B. Temporal Cohesion
- C. Functional Cohesion
- D. Sequential Cohesion

Correct: A

Q:18)A software engineer must design the modules with the goal of high cohesion and low coupling.

- A. True**
- B. False

Correct: A

Q:19) In what type of coupling, the complete data structure is passed from one module to another?

- A. Control Coupling
- B. Stamp Coupling**
- C. External Coupling
- D. Content Coupling

Correct :B



Q:20) If all tasks must be executed in the same time-span, what type of cohesion is being exhibited?

- A. Functional Cohesion
- B. Temporal Cohesion**
- C. Functional Cohesion
- D. Sequential Cohesion

Correct :B

Q:21)_____ defined as a collection of program statements with four basic attribute i.e. input and output, function, mechanics and internal data

A.Module

B.Factoring

C.Fan in

D.Fan Out

Correct :A

Q:22)_____ is the intellectual tool that allows us to deal with concepts apart from particular instances of those concepts.

- A. Module
- B. Abstraction**
- C. Fan-in
- D. Fan-out

Correct :B

Q:23)The -----involves the use of parameterized subprograms.

- A. Functional Abstraction**
- B. Control Abstraction



- C. Cohesion
- D. Coupling

Correct: A

Q:24)The _____ is used to state a desired effect without stating the exact mechanism of control.

- A. Functional Abstraction
- B. Control Abstraction**
- C. Cohesion
- D. Coupling

Correct :B

Q:25)_____in this each module and its dub module corresponding to a processing step in the execution sequence.

- A. Information hiding criteria
- B. Conventional criteria**
- C. Data abstraction criteria
- D. None of these

Correct :B

Q:26)_____ In this each module hides a difficult or changeable design decision from the other module.

- A. Information hiding criteria**
- B. Conventional criteria
- C. Data abstraction criteria
- D. None of these

Correct: A



Q:27) _____ In this each module hides the representation details of a major data structure behind functions that access and modify the data structure.

- A. Information hiding criteria
- B. Conventional criteria
- C. Data abstraction criteria**
- D. None of these

Correct :C

Q:28)A module has _____if there is some logical relationship in the elements of a module.

- A. Logical cohesion**
- B. Temporal cohesion
- C. Both A And B
- D. None of these

Correct: A

Q:29)_____ This module gets data from sub-ordinates and forward it to superordinate(boss) modules.

- A. Afferent modules**
- B. Efferent modules
- C. Co-ordinate modules
- D. Transform modules.

Correct: A

Q:30)_____ This module gets data from super-ordinate and forward it to sub-ordinates.

- A. Afferent modules
- B. Efferent modules**



- C. Co-ordinate modules
- D. Transform modules.

Correct:B

Q:31)_____ This module manages the flow of data between different sub-ordinates. They are used for selection purpose and in decision making.

- A. Afferent modules
- B. Efferent modules
- C. Co-ordinate modules**
- D. Transform modules.

Correct :C

Q:32) This module gets data from super-ordinates, process that data and again forward It to super-ordinate modules, These modules are used for processing purpose.

- A. Afferent modules
- B. Efferent modules
- C. Co-ordinate modules
- D. Transform modules.**

Correct :D

Q:33)Which of the following term describes testing?

- A. Finding broken code
- B. Evaluating deliverable to find errors**
- C. A stage of all projects
- D. None of the mentioned

Correct :B



Q:34) What is Cyclomatic complexity?

- A. Black box testing
- B. White box testing**
- C. Yellow box testing
- D. Green box testing

Correct:B

Q:35) White Box techniques are also classified as

- A. Design based testing
- B. Structural testing**
- C. Error guessing technique
- D. None of the mentioned

Correct:B

Q:36) Exhaustive testing is

- A. always possible
- B. practically possible
- C. impractical but possible**
- D. impractical and impossible

Correct :C

Q:37)Which of the following is/are White box technique?

- A. Statement Testing
- B. Decision Testing
- C. Condition Coverage
- D. All of the mentioned**



Correct :D

Q:38) What are the various Testing Levels?

- A. Unit Testing
- B. System Testing
- C. Integration Testing
- D. All of the mentioned**

Correct :D

Q:39)Boundary value analysis belong to?

- A. White Box Testing
- B. Black Box Testing**
- C. White Box & Black Box Testing
- D. None of the mentioned

Correct :B

Q:40) Alpha testing is done at

- A. Developer's end**
- B. User's end
- C. Developer's & User's end
- D. None of the mentioned

Correct: A

Q:41) The testing in which code is checked

- A. Black box testing
- B. White box testing**
- C. Red box testing
- D. Green box testing

Correct :B



Q:42) Testing done without planning and Documentation is called

- A. Unit testing
- B. Regression testing
- C. Adhoc testing**
- D. None of the mentioned

Correct :C

Q:43) Acceptance testing is also known as

- A. Grey box testing
- B. White box testing
- C. Alpha Testing
- D. Beta testing**

Correct :D

Q:44) Which of the following is non-functional testing?

- A. Black box testing
- B. Performance testing**
- C. Unit testing
- D. None of the mentioned

Correct :B

Q:45) Beta testing is done at

- A. User's end**
- B. Developer's end
- C. User's & Developer's end
- D. None of the mentioned

Correct: A



Q:46)Unit testing is done by

- A. Users
- B. Developers**
- C. Customers
- D. None of the mentioned

Correct :B

Q:47) Behavioral testing is

- A. White box testing
- B. Black box testing**
- C. Grey box testing
- D. None of the mentioned

Correct :B

Q:48) Which of the following is black box testing

- A. Basic path testing
- B. Boundary value analysis**
- C. Code path analysis
- D. None of the mentioned

Correct:B

Q:49) Which of the following is not used in measuring the size of the software

- A. KLOC
- B. Function Points
- C. Size of module**
- D. None of the mentioned

Correct :C



Q:50) The testing in which code is checked

- A. Black box testing
- B. White box testing**
- C. Red box testing
- D. Green box testing

Correct :B





Unit 5 Analysis and design Tools

Q:1) Which of these states the goal of engineering design analysis?

- A. To understand an engineering design problem
- B. To provide an solution for a given problem
- C. All of the mentioned
- D. None of the mentioned

Correct : A

Q:2) What methods can be followed if designers are out of good SRS or engineering design?

- A. They must do whatever part of product design which remains undone
- B. Various approaches and techniques are to be followed to complete
- C. All of the mentioned
- D. None of the mentioned

Correct : C

Q:3) Why is Modelling one of the best way to carry out analysis?

- A. During analysis, It serves as a good test for understanding
- B. Provides further documentation for input to design resolution
- C. All of the mentioned
- D. None of the mentioned

Correct : C



Q:4) Engineering design activities consists of which of the following?

- A. Studying the SRS
- B. Producing new models of the problem
- C. Product design models
- D. All of the mentioned

Correct: D

Q:5) A generic software engineering design follows which of the activities?

- A. Analysis
- B. Architectural Design
- C. Finalize Design
- D. Analysis & Architectural Design

Correct: D

Q:6) Architectural design stage include which of the following activity?

- A. Generate/Improve detailed design alternatives
- B. Select architecture
- C. Finalize Design
- D. All of the mentioned

Answer: b



Selection and finalizing architecture is followed in Architectural design stage.

Q:7) Detailed design stage include which of the following activity?

- A. Generate / Improve candidate architectures
- B. Evaluate candidate architecture
- C. Finalize Design
- D. None of the mentioned

Correct : C

Finalizing design is the only stage mentioned here which belongs to Detailed Design.

Q:8) What is Analysis model?

- A. Understanding of design problem
- B. Representation of design problem solution
- C. Representation of design problem
- D. All of the mentioned

Correct : C

Analysis Model is representation of design problem.

Q:9) Which of the following statement is true?

- A. A class model is representation of objects in a problem or a software solution
- B. A object model is representation of classes in a problem or a software solution
- C. All of the mentioned
- D. None of the mentioned

Correct : D



All are false , A class model is representation of classes in a problem or a software solution and vice versa.

Q:10) Which of the following statement is true?

- A. Class Diagram are graphical form of class models
- B. Object Diagram are graphical forms of object models
- C. All of the mentioned
- D. None of the mentioned

Correct : C

All of the statements are true.

Q:11) Which of these are types of class model used in object oriented analysis?

- A. Analysis Class models/ Conceptual Models
- B. Design Class Models
- C. Implementation Class Models
- D. All of the mentioned

Correct : D

Q:12) Which of the following represents the use of Conceptual models during product design?

- A. Understanding the problem design
- B. Setting Data Requirements
- C. Validating Requirements
- D. All of the mentioned



Correct : D

Conceptual Models consists of all of the uses.

Q:13) Which of the following represents the use of Conceptual models during engineering design?

- A. Understanding product design
- B. Undergirding Engineering Modelling
- C. All of the mentioned
- D. None of the mentioned

Correct : C

Q:14) What are Design Class Models?

- A. They show classes in a software system
- B. They represents attributes,operations, association in abstraction from language
- C. They show implementation details
- D. All of the mentioned

Correct : D

Q:15) Conceptual models are useful for which of the following reasons?

- A. Understanding problem design
- B. Data Requirements and Product design
- C. Validating requirements
- D. All of the mentioned

Correct : D



Conceptual models are useful for all of the above reasons mentioned.

Q:16) Why there is a need for Software management?

- a) Software development is complex and expensive
- b) It is done with few people with fixed skills and abilities
- c) It is not time consuming
- d) None of the mentioned

Answer: a

Q:17) Which of these is wrong in terms of definition?

- a) Planning is formulating scheme for doing project
- b) Organizing is directing people doing project work
- c) Project is one time effort to achieve a particular goal for organization
- d) Staffing is filling the positions in an organizational structure

Answer: b

Q:18) Which of these is wrong in terms of definition?

- a) Planning is formulating scheme for doing project
- b) Organizing is directing people doing project work
- c) Project is one time effort to achieve a particular goal for organization
- d) Staffing is filling the positions in an organizational structure

Answer: b

Q:19) Which of these is not project development activity?



- a) Planning
- b) Organizing
- c) Operating
- d) Tracking

Answer: c

Q:20)Which of these comes under business activities?

- a) Project
- b) Operations
- c) Planning
- d) Project & Operations

Answer: d

Q:21)Which of these terms have its role in project planning?

- a) Schedule
- b) Milestone
- c) Estimation
- d) All of the mentioned

Answer: d

Q:22)What fails a project?

- a) Lack of anticipation of resources to accomplish tasks



- b) Problems faced by rules governing project
- c) All of the mentioned
- d) None of the mentioned

Answer: c

Q:23)What makes tracking activity more essential?

- a) No need to follow rules
- b) It schedules, estimates and follows resource allocation
- c) All of the mentioned
- d) None of the mentioned

Q:24)What are decompositions for design project?

- a) Analysis : Design Problem
- b) Resolution : Product specifications
- c) Resolution : Detailed design
- d) All of the mentioned

Q:25 Why are Patterns important?

- a) They capture expert design knowledge
- b) They make captured design accessible to both novices and other experts
- c) All of the mentioned
- d) None of the mentioned)

Answer: c



Q:28)What benefits does patterns provide?

- a) Novice designers can benefit from learning solution patterns that experts use, without needing design experience
- b) Expert designers can benefit from studying patterns too: They can broaden their repertoire of patterns and deepen their understanding of the patterns they already know
- c) All of the mentioned
- d) None of the mentioned

Answer: c

Q:29)What benefits does patterns provide?

- a) Promoting Communication
- b) Streamlining Documentation
- c) Increasing Development Efficiency
- d) All of the mentioned

Answer: d

Q:30) Which of the following Choices and standardizes patterns for a problem domain promotes software reuse and, hence, quality and productivity?

- a) Promoting Communication
- b) Streamlining Documentation
- c) Increasing Development Efficiency
- d) Supporting Software Reuse



Answer: d

Q:31)Which of the following statement is false?

- a) Terminological consistency is simply using words with same meaning and always using the same words to refer to particular thing
- b) A stakeholder goal or need is within the project scope
- c) A statement is correct if it is contingent and accords with the facts

Answer: d

Q:32)Which of these are not purchaser (stakeholder) goals?

- a) Pay the least for a product that meets irrigation needs
- b) Purchase a product that is cheap to operate
- c) Purchase a product that is cheap to maintain
- d) Have a product that is easy and fast to install

Answer: d

Q:33) 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

Q:34)How many feasibility studies is conducted in Requirement Analysis ?

- a) Two



- b) Three
- c) Four
- d) None of the mentioned

View Answer

Answer: b

Q:35) How many phases are there in Requirement Analysis ?

- a) Three
- b) Four
- c) Five
- d) Six

View Answer

Answer: c

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

Q:36) Traceability is not considered in Requirement Analysis.

- a) True
- b) False

View Answer

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.

Q:37) 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

View Answer

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.

Q:38) _____ and _____ are the two issues of Requirement Analysis.

- a) Performance, Design
- b) Stakeholder, Developer
- c) Functional, Non-Functional
- d) None of the mentioned

View Answer

Answer: b

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



Q:39) 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

View Answer

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.

Q:40) Requirements Analysis is an Iterative Process.

- a) True
- b) False

View Answer

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.

Q:41) 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

View Answer

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.

Q:42) Requirements should specify 'what' but not 'how'.

- a) True
- b) False

View Answer

Answer: a

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

Q:43) 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

Q:44) 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

View Answer

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.

Q:45)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

View Answer

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.



Q:46) 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

View Answer

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.

Q:47) The SRS document is also known as _____ specification.

- a) black-box
- b) white-box
- c) grey-box



d) none of the mentioned

View Answer

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.

Q:48) Which of the following is included in SRS ?

- a) Cost
- b) Design Constraints
- c) Staffing
- d) Delivery Schedule

View Answer

Answer: b

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

Q:49) Which of the following is not included in SRS ?

- a) Performance
- b) Functionality
- c) Design solutions
- d) External Interfaces

View Answer



Answer: c

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

Q:50) 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

View Answer



Unit 7: Software Maintenance and Software Re-Engineering

1. 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

View Answer

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.

2. 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

View Answer

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?”.

3. 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

View Answer

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.

4. Narrative essay is one of the best types of specification document ?

- a) True
- b) False

View Answer

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.



5. Software Maintenance includes

- a) Error corrections
- b) Enhancements of capabilities
- c) Deletion of obsolete capabilities
- d) All of the mentioned

Answer: d

Explanation: None.

6. Maintenance is classified into how many categories?

- a) two
- b) Three
- c) four
- d) five

Answer: c

Explanation: Adaptive, corrective, perfective and preventive are the four types of software maintenance.

7. The modification of the software to match changes in the ever changing environment, falls under which category of software maintenance?

- a) Corrective
- b) Adaptive
- c) Perfective
- d) Preventive

Answer: b



Explanation: None.

8. How many phases are there in Taute Maintenance Model?

- a) six
- b) Seven
- c) eight
- d) nine

Answer: c

Explanation: None.

9. What type of software testing is generally used in Software Maintenance?

- a) Regression Testing
- b) System Testing
- c) Integration Testing
- d) Unit Testing

Answer: a

Explanation: All other options are known as levels of software testing which further have types of software testing.

10. Regression testing is a very expensive activity.

- a) True
- b) False



11. Defects removal efficiency (DRE) depends on:

- a) E – errors found before software delivery
- b) D – defects found after delivery to user
- c) Both E and D
- d) Varies with project

Answer: c

Explanation: $DRE = E / (E + d)$.

12. 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

13. Defects removal efficiency (DRE) depends on:

- a) E – errors found before software delivery
- b) D – defects found after delivery to user
- c) Both E and D
- d) Varies with project

Answer: c

Explanation: $DRE = E / (E + d)$.



15. What all has to be identified as per risk identification?

- a) Threats
- b) Vulnerabilities
- c) Consequences
- d) All of the mentioned

Answer: d

Explanation: Risk identification states what could cause a potential loss.

16. Which one is not a risk management activity?

- a) Risk assessment
- b) Risk generation
- c) Risk control
- d) None of the mentioned

Answer: b

Explanation: Risk management activities would never want a new risk to be generated.

17. Which one is not a risk management activity?

- a) Risk assessment
- b) Risk generation
- c) Risk control
- d) None of the mentioned

Answer: b

Explanation: Risk management activities would never want a new risk to be generated.



18. What is the product of the probability of incurring a loss due to the risk and the potential magnitude of that loss?

- a) Risk exposure
- b) Risk prioritization
- c) Risk analysis
- d) All of the mentioned

Answer: a

Explanation: None.

19. What threatens the quality and timeliness of the software to be produced?

- a) Known risks
- b) Business risks
- c) Project risks
- d) Technical risks

Answer: d

Explanation: Technical risks identify potential design, implementation, interface, verification, and maintenance problems.

20. What threatens the viability of the software to be built?

- a) Known risks
- b) Business risks
- c) Project risks
- d) Technical risks

Answer: b



Explanation: Business risks often jeopardize the project or the product.

21. Which of the following is not a business risk?

- a) building an excellent product or system that no one really wants
- b) losing the support of senior management due to a change in focus or change in people
- c) lack of documented requirements or software scope
- d) losing budgetary or personnel commitment

Answer: c

Explanation: This is not considered as a business risk.

22. Which of the following is a systematic attempt to specify threats to the project plan?

- a) Risk identification
- b) Performance risk
- c) Support risk
- d) Risk projection

23. Which risks are associated with the overall size of the software to be built or modified?

- a) Business impact risks
- b) Process definition risks
- c) Product size risks
- d) Development environment risks

Answer: c

Explanation: None.



24. Which risks are associated with constraints imposed by management or the marketplace?

- a) Business impact risks
- b) Process definition risks
- c) Product size risks
- d) Development environment risks

Answer: a

Explanation: None.

25. Which of the following term is best defined by the statement: "the degree of uncertainty that the product will meet its requirements and be fit for its intended use."?

- a) Performance risk
- b) Cost risk
- c) Support risk
- d) Schedule risk

Answer: a

Explanation: None.

26. In reverse engineering process, what refers to the sophistication of the design information that can be extracted from the source code?

- a) interactivity
- b) completeness
- c) abstraction level
- d) direction level



27. In reverse engineering, what refers to the level of detail that is provided at an abstraction level?

- a) interactivity
- b) completeness
- c) Abstraction level
- d) Directionality

Answer: b

Explanation: None.

28. The core of reverse engineering is an activity called

- a) Restructure code
- b) Directionality
- c) Extract abstractions
- d) Interactivity

Answer: c

Explanation: The engineer must evaluate the old program and extract a meaningful specification of the processing that is performed, the user interface that is applied, and the program data structures or database that is used.

29. The core of reverse engineering is an activity called

- a) Restructure code
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View Answer

Answer: c

Explanation: The engineer must evaluate the old program and extract a meaningful specification of the processing that is performed, the user interface that is applied, and the program data structures or database that is used.

30. What have become de rigueur for computer-based products and systems of every type?

- a) GUIs
- b) Candidate keys
- c) Object model
- d) All of the mentioned

View Answer

Answer: a

Explanation: Therefore, the redevelopment of user interfaces has become one of the most common types of re-engineering activity. But before a user interface can be rebuilt, reverse engineering should occur.

31. Forward engineering is also known as

- a) Extract abstractions
- b) Renovation
- c) Reclamation
- d) Both renovation and reclamation

View Answer



Answer: d

Explanation: Forward engineering, also called renovation or reclamation, not only recovers design information from existing software, but uses this information to alter or reconstitute the existing system in an effort to improve its overall quality.

32. Reverse engineering is the process of deriving the system design and specification from its

- a) GUI
- b) Database
- c) Source code
- d) All of the mentioned

View Answer

Answer: c

Explanation: None

33. Reverse engineering techniques for internal program data focus on the definition of classes of objects.

- a) True
- b) False

View Answer

Answer: a

Explanation: This is accomplished by examining the program code with the intent of grouping related program variables.



34. Which of the following steps may not be used to define the existing data model as a precursor to re-engineering a new database model:

- a) Build an initial object model
- b) Determine candidate keys
- c) Refine the tentative classes
- d) Discover user interfaces

View Answer

Answer: d

Explanation: Once information defined in the preceding steps is known, a series of transformations can be applied to map the old database structure into a new database structure.

35. Much of the information necessary to create a behavioral model can be obtained by observing the external manifestation of the existing

- a) Candidate keys
- b) Interface
- c) Database structure
- d) none of the mentioned

View Answer

Answer: b

Explanation: The GUI or the interface provides the base for the behavioral model.



36. Extracting data items and objects, to get information on data flow, and to understand the existing data structures that have been implemented is sometimes called

- a) data analysis
- b) directionality
- c) data extraction
- d) client applications

View Answer

Answer: a

Explanation: None.

37. Reverse engineering and Re-engineering are equivalent processes of software engineering.

- a) True
- b) False

View Answer

Answer: b

Explanation: Re engineering is a process of analysis and change whereby a system is modified by first reverse engineering and then forward engineering.

38. Transformation of a system from one representational form to another is known as

- a) Re-factoring
- b) Restructuring



- c) Forward engineering
- d) Both Re-factoring and Restructuring

View Answer

Answer: d

Explanation: None.

39. Which of the following is not an objective of reverse engineering?

- a) to reduce maintenance effort
- b) to cope with complexity
- c) to avoid side effects
- d) to assist migration to a CASE environment

View Answer

Answer: d

Explanation: Reverse engineering helps us to detect side effects rather than avoiding them.

40. 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

View Answer



Answer: b

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

41. _____ allows us to infer that different members of classes have some common characteristics.

- a) Realization
- b) Aggregation
- c) Generalization
- d) dependency

View Answer

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.

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

- a) True
- b) False

View Answer

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.



43. _____ & _____ diagrams of UML represent Interaction modeling.

- a) Use Case, Sequence
- b) Class, Object
- c) Activity, State Chart
- d) All of the mentioned

View Answer

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.

44. Which level of Entity Relationship Diagram (ERD) models all entities and relationships ?

- a) Level 1
- b) Level 2
- c) Level 3
- d) Level 4

View Answer

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.



45. _____ 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

View Answer

Answer: c

Explanation: The answer is self-explanatory.

46. 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 modeling
- 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

View Answer

Answer: c

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



47. A data object can encapsulates processes and operation as well.

- a) True
- b) False

View Answer

Answer: b

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

48. The two dimensions of spiral model are

- a) diagonal, angular
- b) radial, perpendicular
- c) radial, angular
- d) diagonal, perpendicular

View Answer

Answer: c

Explanation: The radial dimension depicts the cumulative costs and the angular dimension depicts the progress made in completing each cycle. Each loop of the spiral model represents a phase.

49. The Incremental Model is combination of elements of

- a) Build & FIX Model & Waterfall Model
- b) Linear Model & RAD Model



c) Linear Model & Prototyping Model

d) Waterfall Model & RAD Model

View Answer

Answer: c

Explanation: Each linear sequence produces a deliverable “increment” of the software system, particularly needed in case of quick delivery of a limited functionality system..

50. Model preferred to create client/server applications is

a) WINWIN Spiral Model

b) Spiral Model

c) Concurrent Model

d) Incremental Model

View Answer

Answer: c

Explanation: In case of client/server applications, the concurrent process model specifies activities in two dimensions: a system dimension and a component dimension. Hence Concurrency is achieved by these two activities occurring simultaneously and can be modeled using the state-oriented approach.