Q1. Which of the following steps do you think developers should take to create efficient compact applications?

a. Clearly define initial requirements of the system

b. concentrate earlt development efforts on modeling implementation mechanisms

c. Analyze and manage risk throughout the development process

d. Leave all software testing until after system has been implemented

**1. a, c**

2. a, b

3. a, b, d

4. a, b, c

Q2. Towards end of the design phase, \_\_\_\_\_\_\_\_\_\_\_ should be allocated to source code components.

1. use cases

2. relationships

3. models

**4. classes**

Q3. What do you think is the first step you should take in designing any project?

1. design a prototype

2. create the test cases

**3. define problem domain and produce problem statement**

4. draw up a plan for entire project

Q4. Which of the following best describes what the problem domain is?

1. kinds of resources available to development team

**2. surroundings in which system operate**

3. set of all functionality required of a system

4. list of technical details needed to implement project

Q5. In which of the following phases of use-case driven process do you think use cases have a role?

a. requirement capture

b. analysis

c. design

d. implementation

e. test

1. a, b, c

2. a, b, c, d

3. b, d

**4. a, b, c, e**

Q6. All models of a system shuould have same precision

Correct Answer : F

Q7. collaboration diagram represents

**1. organization of objects**

2. messages on time scale

3. conceptual design

4. set of actions

Q8. sequence diagram represents

1. organization of objects

**2. messages on time scale**

3. conceptual design

4. set of actions

Q9. UML supports \_\_\_\_\_\_\_\_\_\_\_\_ phases of software development

1. earlier

2. final

3. middle

**4. all**

Q10. Analysis takes place from \_\_\_\_\_\_\_\_\_\_\_ perspective and design takes place from \_\_\_\_\_\_\_\_\_\_ perspective

1. user, user

**2. user, developer**

3. developer, user

4. developer, developer

Q11. The \_\_\_\_\_\_\_\_\_\_\_\_ phase of SDLC aims at ensuring software product is as per requirements.

1. design

2. development

**3. testing**

4. deployment

Q12. polymorphism \_\_\_\_\_\_\_\_\_\_\_\_

1. organizes abstraction

2. builds a bridge between user and developer

3. delivers a system in a series of versions

**4. works with encapsulation and inheriatance to simplify flow of control**

Q13. spiral model incarporates risk management

Correct Answer : T

Q14. storage management is not a part of version management

Correct Answer : F

Q15. data flow diagrams are part of design phase of SDLC

Correct Answer : T

Q16. Which is an iterative process through which the requirements are translated to "blueprint" for constructing software

1. testing

2. requirement analysis

**3. design**

4. maintenance

Q17. An adaptive maintenance is

1. to improve syatem in some way without changing its basic functionlity

**2. the maintenance due to changes in environment**

3. correlation of undiscovered system errors

4. none of the above

Q18. What manifests in the patterns of choices made among alternative ways of expressing an algorithm is

1. a data flow diagram

2. coding style

3. a data dictionary

**4. a flow chart**

Q19. quality control

**1. focuses on ispections, testing and removal of defects before release**

2. is a set of planned and strictly and strategic actions to provode confidence that the product or service will satisfy given requirements for quality

3. is to check system for its internal errors

4. all of the above

Q20. elements of software architecture of a computing systems include

a. software components

b. class diagrams

c. connectors expressing relationships between software components

d. E-R diagram

1. a, b

**2. a, c**

3. a, c, d

4. a, b, c, d

Q21. which of the following types of test plans is most likely to arise from requirement specification process?

1. system integration testing plan

**2. acceptance test plan**

3. sub-system integration test plan

4. module test plan

Q22. pick up the odd one out of the following

1. data flow diagram

**2. object identification**

3. structural decomposition

4. E-R diagrams

Q23. In project planning first thing is

**1. set objectiv or goal**

2. develop strategies and policies

3. decision making

4. find out requirement

Q24. Which is not part of phases of software development

1. high level design

2. low level design

**3. mid level design**

4. replication, delivery, installation

Q25. Which of the following is not part of spiral model?

1. planning

2. customer communication

**3. project documentation**

4. engineering

Q26. DFD is not a

**1. logical model of system**

2. good guide to a system

3. representation of physical stream

4. all of the above

Q27. Pick up one of the testing methods given below that is part of white-box testing

1. equivalence partitioning

2. boundary value analysis

**3. basis and testing**

4. debugging

Q28. Productivity metrics

**1. focuses on the output of the development process.**

2. focuses on the characteristics of the software.

3. provide indirect measure.

4. All.

Q29. The requirement phase consist of

a) Problem analysis b) Requirement specification

c) Requirement validation d) Problem validation

1. a, b, c

**2. a, b, c, d**

3. a, b, d

4. a, c, d

Q30. Following are the different steps that is to be followed

in design methodology arrange them in an order.

a) First level factoring b) factoring of input

c) Restate the problem d) Identifying the input and output

1. a, b, c, d

**2. c, d, a, b**

3. a, d, c, b

4. a, c, b ,d

Q31. Which is not a type of maintenance?

1. Adaptive

2. Corrective

3. Perfective

**4. Obsolescence**

Q32. COCOMO is an effort estimation model in terms of \_\_\_\_\_\_\_\_

1. Cost

**2. Person- Months**

3. Both

4. None of the above

Q33. Pick the odd one out

**1. Component assembly model**

2. Spiral Model

3. Incremental Model

4. Iterative Model

Q34. Pick the odd one out

1. Data Flow Diagrams

**2. Object Identification**

3. Structural Decomposition

4. E-R Diagrams

Q35. Maintainability is the ease with which a software can

1. be corrected if an error is encountered

2. adapted if its environment changes

3. enhanced if the customer desires a change in requirements

**4. all of above**

Q36. Which of the following factors of a Software Product may not contribute much directly to its maintainibility?

1. Understandability

2. Flexibility

**3. Security**

4. Testability

Q37. Which of the following activities is not considered as "Umbrella Activity"

1. S/W Quality assurance

**2. Software Design**

3. S/W configuration management

4. S/W Project Monitoring & Control

Q38. What is the primary purpose of the first stage of software analysis and design?

1. Determining system deployment

2. Writing code

**3. Capturing requirements**

4. Building GUIs

Q39. The type of testing carried out along with coding is called

1. system testing

**2. unit testing**

3. pretesting

4. stress testing

Q40. SDLC starts with \_\_\_\_\_\_\_\_\_\_\_ stage

**1. User Requirement and Analysis**

2. Deployment

3. Testing

4. Design

Q41. The following are the steps of SDLC

1. Analysis

2. Design

3. Testing

**4. All of the above**

Q42. The analysis phase takes a \_\_\_\_\_\_ approach to the system, ignoring its inner workings whereas the design phase takes a \_\_\_\_\_ approach, making decisions on how the model will be implemented in code

1. White box & Black box

**2. Black box & White box**

3. Top-Down & Bottom-Up

4. Bottom-Up & Top-Down

Q43. During the \_\_\_\_\_\_ phase, the application is verified against the requirements

1. Analysis

2. Design

**3. Testing**

4. Implementation

Q44. The type of software maintainence which is done to remove bugs or defects in the software is called

**1. Corrective Maintainence**

2. Adaptive Maintainence

3. Regressive Maintainence

4. Perfective Maintainence

Q45. Pick up the odd one out of the following process models

1. Component assembly model

2. Prototyping Model

3. Spiral model

**4. Waterfall Model**

Q46. Prototype may be used for

1. Risk Reduction

2. Requirements Elicitation

3. User Interface Design

**4. all of the above**

Q47. RAD Model is high speed implementation of

**1. Waterfall Model**

2. Spiral Model

3. Prototyping model

4. Component Assembly model

Q48. Pick up the odd one out of the following process models

1. Component assembly model

2. Prototypiong Model

3. Spiral model

**4. Waterfall Model**

Q49. In the Spiral model the radius of the spiral at any point represents

1. the level of risk

2. the progress made in the current phase

**3. the cost incurred in the project till then**

4. None of these

Q50. A requirement may be a description of

1. functionality to be provided

2. constraint on the software

3. external interface

**4. all of the above**

Q51. During Requirements Phase recording interface requirements of a software system does not include which of the following interfaces

1. User Interfaces

2. Software Interfaces

3. Hardware Interfaces

**4. Module Interfaces**

Q52. Which of the following is not true about the context diagram?

1. It does not show details of the funtioning

2. It shows major inputs & outputs of the system

3. It shows the external entities of the system

**4. It shows the datastores of the system**

Q53. External Entities in a Context Diagram may be A) People B) Other Software Systems C) Hardware D) Databases

1. Only A & D

2. Only B & C

3. Only A, B & D

**4. A,B, C & D**

Q54. \_\_\_\_\_\_\_ models describe the logical structure of the data which is imported to and exported by the system.

1. Object

**2. Semantic data**

3. Data flow

4. None of the above

Q55. Example of a Semantic Data model is

1. data flow diagram

2. Context Diagram

**3. Entity Relationship Diagram**

4. all of the above

Q56. Data Models do not consider

1. Attributes of the data object

2. Relationships between data objects

**3. Operations that act on the data**

4. Any of the above

Q57. Which of the following is true about E-R Diagrams?

1. They consist of object-relationship pairs

2. It indicates cardinality of relationships

3. It indicates modality of relationships

**4. all of the above**

Q58. Which of the following is not a characteristic of a good SRS document?

1. Unambigious

2. Verifiable

**3. Redundant**

4. Consistent

Q59. The ways of describing specifications at different levels of detail include

1. requirements definition

2. requirements specification

**3. both a and b options**

4. None of these options

Q60. A system developed to give end users a concrete impression of the system capabilities is called

1. Semantics

2. model

**3. prototype**

4. abstraction

Q61. Formal specification language consists of

1. syntax

2. semantics

3. set of relations

**4. all of the above**

Q62. Planning the solution to a programming problem using a structured technique is called program

1. coding

2. compiling

3. moduling

**4. design**

Q63. The software architechture is best represented by

1. Context Diagram

2. Flow Chart

**3. Structure Chart**

4. Data Flow Diagram

Q64. Conception & planning out of externally observable characteristics of a software is called

1. External Design

2. User Interface Design

**3. Both a and b options**

4. None of the above

Q65. A way of indicating the desired effect without establishing the actual mechanism

1. Procedural Abstraction

2. Data Abstraction

**3. Control Abstraction**

4. None of the above

Q66. The number & complexity of interconnections between two modules is an indicator of

1. Modularity

2. Cohesion

**3. Coupling**

4. Abstraction

Q67. Use of global data areas or global variables may lead to

1. Stamp Coupling

**2. Common Coupling**

3. Content Coupling

4. Control Coupling

Q68. Which of the following is a graphical tool for software design?

1. Data Flow Diagram

2. Structure Chart

3. Decision Tree

**4. all of the above**

Q69. The method of deriving the structure chart from the DFD is called

1. Factoring

2. Factor Analysis

**3. Transform Analysis**

4. all of the above

Q70. Transform Analysis performed on a DFD identitfies the

1. Afferent Branch

2. Efferent Branch

3. Central Transform

**4. all of the above**

Q71. Which iof the following is true about structure chart notations?

1. There should be only one module at the top

2. There should be at the most one control arrow between two modules

3. The sequence or order of tasks is not represented

**4. All of the above**

Q72. Which of the following is not true about a flow chart?

1. It shows the flow of control of a program

2. It is a tool for detailed design

3. Data interchange is not represented

**4. It clearly separates various modules of the software**

Q73. Which of the following is true with respect to function oriented & object oriented design methodologies

1. They vary in the basic abstractions they use

2. They vary in the way state information is maintained

3. They vary in the way functions are grouped

**4. All of the above**

Q74. What manifests in the patterns of choices made among alternatives ways of expressing an algorithm is

1. a data flow diagram

**2. coding style**

3. a data dictionary

4. None of these options

Q75. A programmer must follow the rules for coding a particular programming language. These rules are called:

1. pseudocode

2. iteration

**3. syntax**

4. documentation

Q76. Typographical errors and/or incorrect use of the programming language is referred to as

1. logic errors

**2. syntax errors**

3. run time errors

4. A bug

Q77. A test case design technique that makes use of a knowledge of the internal program logic

1. Black Box Testing

**2. White Box Testing**

3. Unit Testing

4. None of these

Q78. \_\_\_\_\_\_\_ is the process of locating and eliminating program errors.

1. editing

**2. correcting**

3. debugging

4. testing

Q79. Changes made to the software to correct defects uncovered after delivery is called

1. perfective maintainence

2. regressive maintainence

3. adaptive maintainence

**4. corrective maintainence**

Q80. Changes made to the software to accommodate changes to its environment is called

1. perfective maintainence

2. regressive maintainence

**3. adaptive maintainence**

4. corrective maintainence

Q81. Changes made to the software to extend it beyond its original functionality is called

**1. perfective maintainence**

2. regressive maintainence

3. adaptive maintainence

4. corrective maintainence

Q82. Major changes made to software after long periods is also called software reengineering or

1. perfective maintainence

**2. regressive maintainence**

3. adaptive maintainence

4. corrective maintainence

Q83. COCOMO is categorizes as a \_\_\_\_\_\_\_\_\_\_\_\_estimation technique

**1. Heuristic**

2. Empirical

3. Analytical

4. None of the above

Q84. Final Function point count calculated for project will result in the smallest LOC if implemented in

1. Assembly

2. C

3. C++

**4. Visual Basic**

Q85. The value of COCOMO cost driver attribute for higher than average Programmer Ability will be

1. Greater than 1

2. Equal to 1

**3. Less than 1**

4. None of these

Q86. \_\_\_\_ and \_\_\_\_ are graphical notations which are used to illustrate the project schedule.

1. Bar chart and DFD

2. ERD and Bar chart

3. Class diagram and activity networks

**4. Bar char and activity networks**

Q87. Most of the project plans should include

1. Risk analysis

2. Project organization

3. Project schedule

**4. All of the above**

Q88. \_\_\_\_\_\_\_\_ shows the dependencies between the different activities making up a project.

**1. PERT chart**

2. Bar chart

3. Staffing Plan

4. Pi chart

Q89. Which of the following is true as per Putnam model

1. Staffing Pattern peaks at Coding & Unit testing

2. Schedule compression increases effort in proportion to fourth power

3. Expanding the schedule gives extreme saving in effort

**4. all of the above**

Q90. Democratic team structure is suitable for projects

1. with strict deadlines

2. with clearly known requirements

**3. with research orientation**

4. None of these

Q91. Chief Programmer Teams are suitable for projects

1. with research orientation

**2. with high modularity**

3. with high creativity

4. None of these

Q92. Which of the follwing are Software Risk Components

1. Performance

2. Cost

3. Schedule

**4. all of the above**

Q93. The RMMM plan is generally included in the

1. Feasibility Study

**2. Project Plan**

3. SRS Document

4. Project Legacy

Q94. RMMM is a Risk Management methodology which focusses on

1. Risk avoidance by developing a risk mitigation plan

2. Continous risk monitoring throughout the project

3. Actually managing the risks when they become a reality by contingency planning

**4. all of the above**

Q95. Risks arising out of frequent change requests are best mitigated by

1. User characterization

**2. Strong SCM**

3. Multisource estimations

4. Prescheduling key personnel

Q96. Risk of unrealistic estimates & schedules can be overcome by

1. Using objective methods of estimation rather than judgemental methods

2. Developing a culture of software reuse

3. Performing multisource estimations

**4. all of the above**

Q97. A change request has to be evaluated for

1. its technical merit

2. cost & schedule impacts

3. side effects

**4. All of these options**

Q98. Under SCM the various SCIs are strictly maintained

1. by their respective authors

2. by the appropriate team

**3. in a central project database**

4. all of the above

Q99. Software quality managers are responsible for \_\_\_\_.

1. Quality assurance

2. Quality planning

3. Quality control

**4. All of the above**

Q100. As per SEI CMM oganizations which do not have any KPAs present & stable are considered at

**1. Level 1**

2. Level 2

3. Level 3

4. Level 4