

Software Engineering

For

Objective Type MCQs With Answers

PPSC, CSS, PMS, NTS, OTS, PTS, SPSC, BPSC, KPPSC All Exams & Interviews.

- 
- **Computer Science Basics**
 - **Information Technology (IT)**
 - **MS Windows**
 - **Microsoft Office**
 - **C Language**
 - **Fundamentals of the Internet**
 - **Software Basics**
 - **Hardware Basics**

EasyMCQs 

All Classes Notes, Past Papers

WWW.EASYMCQS.COM

Software Engineering MCQs

A web blueprint depicts ?

- A. the layout of an individual web page
- B. the layout of the home page
- C. the layout of an index page
- D. the layout of a website (Answer)

Information management model involves four steps ----- , ----- , ----- & ----- ?

- A. Diagnosis evaluation, design, implementation (Answer)
- B. Diagnosis, design, software, hardware
- C. Hardware, software, DBMS, Data communication
- D. None of these

The ----- calls for trimming and chopping of these designs so that the cost is reduced, service is improved and the customer gets higher value at a higher speed?

- A. Business process
- B. Radical redesign (Answer)
- C. The fundamental rethinking
- D. None of these

Management information system usually ?

- A. serve managers interested in weekly, monthly and yearly results not day to day activities. (Answer)
- B. Help managers make decisions that unique, rapidly changing and not easily speci
- C.
- D.

In a typical ----- network, application processing is shared between clients and one more servers?

- A. client server computing (Answer)
- B. data computing
- C. mobile computing
- D. cloud computing

The elements of control will consist of -----?

- A. Authority, Direction, Management (Answer)
- B. Authority, Direction, Information
- C. Authority, Application, Management
- D. Authority, Application, Information

Optical character recognition ?

- A. is less prevalent than optical mark recognition
- B. requires the user to carefully handwrite input data on a business form
- C. both A and B (Answer)
- D. None

Which of the following is NOT a guideline for successfully conducting a Joint Requirements Planning (JRP) session ?

- A. stay on schedule
- B. allow for ample breaks
- C. brainstorm technical alternatives to problems identified in a JRP session (Answer)
- D. None of these

All of the following are phases of systems analysis, except ?

- A. decision analysis phase
- B. requirements analysis phase
- C. design analysis phase (Answer)
- D. problem analysis phase

Who are the people that actually use the system to perform or support the work to be completed ?

- A. system analysts
- B. system designers
- C. system owners
- D. None of the above (Answer)

The most important attribute of information quality that a manager requires is ?

- A. relevance (Answer)
- B. media
- C. presentation
- D. timeliness

Management is the process of achieving organizational goal by ----- , ----- , ----- and ----- organizational resources?

- A. Organizing, dealing, planning, controlling
- B. Planning, scheduling, controlling, organizing
- C. Planning, organizing, leading, controlling (Answer)
- D. None of these

A ----- process in any area of the business organization performs basic steps such as, receive input, measure, analyze, document, perform, process, record / store, access, produce and communicate?

- A. Value
- B. Decision making

- C. Business (Answer)
- D. Re-engineering

Mass production of computers started in ----- , when UNIVAC 1 was delivered?

- A. 1951 (Answer)
- B. 1952
- C. 1953
- D. 1954

Critical information for top management is provided by ----- information system?

- A. expert
- B. managerial
- C. executive (Answer)
- D. decision

----- processing, involves duplicating, sorting and filling data. ----- processing with electronic scanners involves transforming and entering the data into an electronic form?

- A. Manual, electronic (Answer)
- B. Electronic, manual
- C. Transforming
- D. None of the above

A ----- is a measure, an intangible measure, which is difficult to count in clear terms?

- A. Model
- B. Business
- C. Value (Answer)
- D. Organization

Newspaper, magazine, radio, television are example of -----?

- A. Storing information
- B. Retrieving information
- C. Communication information
- D. Acquiring information (Answer)

----- can occur at the individual, group, organizational or extra-organizational level?

- A. Planning (Answer)
- B. Controlling
- C. Organizing
- D. Scheduling

----- is/are the resources are used for DSS to explore decision alternatives?

- A. Data
- B. Software
- C. Hardware
- D. People (Answer)

----- type of testing ensures the system is free of errors and is ready to be placed into operation?

- A. Audit (Answer)
- B. General
- C. Technical
- D. Data

Which of the following is(are) the inputs to the Systems Construction phase ?

- A. design prototypes
- B. redesigned business processes
- C. physical design specifications
- D.all of the above (Answer)

The person generally responsible for the program design strategy, standards, and construction is called a(n) ?

- A. program librarian
- B. backup chief programmer
- C. network designer
- D.chief programmer (Answer)

The process of requirements discovery consists of the following activities, except-----?

- A. requirements management
- B. sampling of existing documentation, forms and files (Answer)
- C. requirements discovery
- D. problem discovery and analysis

Which of the following analysis techniques derive system models from existing system or discovery prototypes ?

- A. rapid architected analysis (Answer)
- B. object-oriented analysis
- C. data modeling
- D. discovery prototyping

Which is not a typical business function ?

- A. Sales
- B. Service
- C. Manufacturing
- D.Benefits and Compensation (Answer)

Which of the following relates to enterprise interoperability ?

- A. DFD
- B. Information flow diagram
- C. XML (Answer)
- D. Entity relationship diagram

To improve the performance of a business process, which of the following is most relevant ?

- A. Input
- B. Processing
- C. Control and feedback (Answer)
- D. All of the above

Which of the following is a deliverable of the system implementation phase in a formal system development process ?

- A. technical hardware and software solution for the business problem (Answer)
- B. business problem statement
- C. statement of the system users' business requirements
- D. techni

The person who ensures that systems are developed on time, within budget, and with acceptable quality is a-----?

- A. systems designer
- B. project manager (Answer)
- C. systems owner
- D. external system user

Which of the following is not a type of navigation system for a web site ?

- A. National
- B. Global
- C. Contextual
- D. Regional (Answer)

----- development of DSS relies on the creation of a prototype and its progressive refinement?

- A. Iterative (Answer)
- B. Traditional
- C. Quick hit
- D. None of these

Which one of the following is not a business driver for an information system ?

- A. business process redesign
- B. knowledge asset management
- C. proliferation of networks and the Internet (Answer)
- D. security and privacy

The cost of information can be -----?

- A. Costly
- B. Valuable (Answer)
- C. Processing
- D. None of the above

Controls of data communication deal with -----?

- A. the communication channel
- B. the computer
- C. terminals
- D. All of the above (Answer)

Which of the following steps is/are the implementation plans involved in MIS ?

- A. Preparing organizational plans
- B. Planning of work flow
- C. Training of personnel
- D. All of the above (Answer)

The advantage(s) of transistors are they ?

- A. Are portable
- B. Are more reliable
- C. Consume less power
- D. All of the above (Answer)

If you need to collect employee status information (e.g., full-time vs. part-time) on a computer screen, your best choice for a GUI control would be ?

- A. drop-down list
- B. masked edit control
- C. radio buttons (Answer)
- D. spin box

Contemporary Information Systems are interfacing with customers and suppliers using ?

- A. SCM
- B. CRM
- C. Both A and B (Answer)
- D. BPR

When a bank uses business performance management software to monitor its performance in differences regions this ?

- A. reduces costs
- B. manages risks (Answer)
- C. adds value
- D. creates a new opportunity

----- systems help to analyze historical and current data either on demand or periodically?

- A. Data access system
- B. Data analysis system (Answer)
- C. Forecast-oriented data analysis system
- D. System based on accounting models

The first CMM level at which measurable goals for quality and productivity are established is-----?

- A. Level 1
- B. Level 2
- C. Level 3
- D. Level 4 (Answer)

Which of the following is the last phase of the Systems Construction phase ?

- A. build and test databases
- B. write and test new programs (Answer)
- C. prepare conversion plan
- D. build and test networks

MIS normally found in a manufacturing organization will not be suitable in the ----- ?

- A. Service sector (Answer)
- B. Banking sector
- C. Agriculture sector
- D. All of the above

Which of the following is part of a static view of information ?

- A. Logical data model
- B. Meta data
- C. Data flow model (Answer)
- D. Information process model

Which of the following is NOT a feasibility analysis criterion ?

- A. technical feasibility
- B. schedule feasibility
- C. operational feasibility
- D. resource feasibility (Answer)

A list of the names of all customers who purchased only one product within a six-month period would be an example of a(n)-----?

- A. detailed report
- B. summary report
- C. exception report (Answer)
- D. external report

When a bank uses information to launch a personalised credit card product this-----?

- A. manages risks
- B. creates a new opportunity
- C. adds value (Answer)
- D. reduces costs

Language-based, machine-readable representations of what a software process is supposed to do, or how a software process is supposed to accomplish its task is known as-----?

- A. prototyping
- B. software specifications
- C. application programs (Answer)
- D. human engineering

Which installation strategy is a variation on the abrupt and parallel conversion ?

- A. location conversion
- B. staged conversion (Answer)
- C. partial conversion
- D. hierarchical conversion

Which one of the following fact-finding techniques is an inexpensive means of gathering data from a large number of individuals ?

- A. observations
- B. work sampling
- C. interviews
- D. None of the above (Answer)

Which of the following phases identifies and expresses requirements, prioritizes requirements, updates project plan, and communicates the requirements statement ?

- A. logical design phase
- B. decisions analysis phase
- C. problem analysis phase
- D. None of the above (Answer)

An ongoing activity of systems support is-----?

- A. assisting users
- B. adapting the system to new requirements
- C. recovering the system
- D. all of the above (Answer)

A specification of how the user moves from window to window, interacting with the application programs to perform useful work is called-----?

- A. interface specifications
- B. software specifications
- C. user dialog (Answer)
- D. prototyping specifications

All of the following are examples of requirements problems, except -----?

- A. missing requirements
- B. overlapping requirements
- C. costly requirements (Answer)
- D. conflicting requirements

All of the following are examples of requirements problems, except ?

- A. missing requirements
- B. overlapping requirements
- C. costly requirements (Answer)
- D. conflicting requirements

Which of the tests is a final system test performed by end users using real data over an extended period of time ?

- A. final test
- B. complete test
- C. systems acceptance test (Answer)
- D. parallel test

The task of establishing system improvement objectives is performed in which phase of systems analysis ?

- A. problem analysis phase (Answer)
- B. logical design phase
- C. scope definition phase
- D. physical design phase

Open database connectivity (ODBC) tools are an example of-----?

- A. layerware
- B. tool kit
- C. interfaceware
- D. middleware (Answer)

JAR file contains the compressed version of-----?

- A. .java file
- B. .jsp file
- C. .class file (Answer)
- D. None of above

----- tests make sure that new code does not break existing code?

- A. Integration tests (Answer)
- B. Regression tests
- C. Load test
- D. Unit tests

How do you get information from a form that is submitted using the “post” method ?

- A. Request.QueryString
- B. Response.writeln
- C. Response.write
- D. Request.Form (Answer)

In ASP.NET application the Global.asax file lie in which directory-----?

- A. System
- B. ROOT (Answer)
- C. Application
- D. None of the Above

Who can access Session state variables ?

- A. All users within a single tunnel
- B. All Users of an application
- C. A Single session (Answer)
- D. All of the above

All the following are examples of input devices EXCEPT a-----?

- A. mouse
- B. printer (Answer)
- C. keyboard
- D. scanner

Which of the following is not a part of bug report ?

- A. Test case
- B. Output
- C. Software Version
- D.LOC (Answer)

Which of the following is not a part of Execution Flow during debugging ?

- A. Step Over
- B. Step Into
- C. Step Up (Answer)
- D. Step Out

Software mistakes during coding are known as-----?

- A. errors
- B. failures
- C. bugs (Answer)
- D. defects

Name an evaluation technique to assess the quality of test cases ?

- A. Mutation analysis (Answer)
- B. Validation
- C. Verification
- D. Performance analysis

Which of the following is one of the steps in the integration testing of OO software ?

- A. cluster testing (Answer)
- B. thread-based testing

- C. use-based testing
- D. None of the mentioned

The construction of object-oriented software begins with the creation of-----?

- A. design model
- B. analysis model
- C. code levels
- D. both design and analysis model (Answer)

Which testing is an integration testing approach that is commonly used when “shrink-wrapped” software products are being developed ?

- A. Regression Testing
- B. Integration testing
- C. Smoke testing (Answer)
- D. Validation testing

What is normally considered as an adjunct to the coding step-----?

- A. Integration testing
- B. Unit testing (Answer)
- C. Completion of Testing
- D. Regression Testing

Test cases should uncover errors like-----?

- A. Nonexistent loop termination (Answer)
- B. Comparison of different data types
- C. Incorrect logical operators or precedence
- D. All of the mentioned

ITG stands for-----?

- A. instantaneous test group
- B. integration testing group
- C. individual testing group
- D. independent test group (Answer)

Which of the following errors should not be tested when error handling is evaluated ?

- A. Error description is unintelligible (Answer)
- B. Error noted does not correspond to error encountered
- C. Error condition causes system intervention prior to error handling
- D.

In which testing level the focus is on customer usage ?

- A. Alpha Testing
- B. Beta Testing
- C. Validation Testing
- D. Both Alpha and Beta (Answer)

By collecting ----- during software testing, it is possible to develop meaningful guidelines to halt the testing process?

- A. Failure intensity
- B. Testing time
- C. Metrics (Answer)
- D. All of the mentioned

Which of the following is not a software testing generic characteristics ?

- A. Different testing techniques are appropriate at different points in time (Answer)
- B. Testing is conducted by the developer of the software or an independent test group
- C. Testin
- D.

Which of the following is not used in measuring the size of the software-----?

- A. KLOC
- B. Function Points
- C. Size of module (Answer)
- D. None of the mentioned

Behavioral testing is-----?

- A. White box testing
- B. Black box testing (Answer)
- C. Grey box testing
- D. None of the mentioned

Beta testing is done at-----?

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

Acceptance testing is also known as-----?

- A. Grey box testing
- B. White box testing
- C. Alpha Testing
- D. Beta testing (Answer)

Which of the following is black box testing-----?

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

Unit testing is done by-----?

- A. Users

- B. Developers (Answer)
- C. Customers
- D. None of the mentioned

Which of the following is non-functional testing ?

- A. Black box testing
- B. Performance testing (Answer)
- C. Unit testing
- D. None of the mentioned

Testing done without planning and Documentation is called-----?

- A. Unit testing
- B. Regression testing
- C. Adhoc testing (Answer)
- D. None of the mentioned

Alpha testing is done at-----?

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

What are the various Testing Levels ?

- A. Unit Testing
- B. System Testing
- C. Integration Testing
- D. All of the mentioned (Answer)

Exhaustive testing is-----?

- A. always possible
- B. practically possible
- C. impractical but possible (Answer)
- D. impractical and impossible

Maintenance testing is performed using which methodology ?

- A. Retesting
- B. Sanity testing
- C. Breadth test and depth test (Answer)
- D. Confirmation testing

The testing in which code is checked-----?

- A. Black box testing
- B. White box testing (Answer)
- C. Red box testing
- D. Green box testing

Boundary value analysis belong to ?

- A. White Box Testing
- B. Black Box Testing (Answer)
- C. White Box & Black Box Testing
- D. None of the mentioned

Which of the following is/are White box technique ?

- A. Statement Testing
- B. Decision Testing
- C. Condition Coverage
- D. All of the mentioned (Answer)

White Box techniques are also classified as-----?

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

What is Cyclomatic complexity ?

- A. Black box testing
- B. White box testing (Answer)
- C. Yellow box testing
- D. Green box testing

Lower and upper limits are present in which chart ?

- A. Run chart (Answer)
- B. Bar chart
- C. Control chart
- D. None of the mentioned

Which level of CMM is for process management ?

- A. Initial
- B. Repeatable
- C. Defined
- D. Optimizing (Answer)

Software reliability is defined with respect to-----?

- A. time (Answer)
- B. bugs
- C. failures
- D. quality

Failure In Time (FIT) is another way of reporting -----?

- A. MTTR
- B. MTTF

- C. MTSF
- D.MTBF (Answer)

In ISO 9126, time behavior and resource utilization are a part of-----?

- A. maintainability
- B. portability
- C. efficiency (Answer)
- D. usability

MTTF stands for-----?

- A. Minimum time to failure
- B. Mean time to failure (Answer)
- C. Maximum time to failure
- D. None of the mentioned

Which of the following is not a Probabilistic Model ?

- A. Error seeding
- B. NHPP
- C. Input domain
- D.Halstead's software metric (Answer)

IMC Networks is a leading ----- certified manufacturer of optical networking and LAN/WAN connectivity solutions for enterprise, telecommunications and service provider applications ?

- A. Telco Systems (Answer)
- B. D-Link
- C. Arista Networks
- D. ISO 9001

How many levels are present in CMM ?

- A. three
- B. four
- C. five (Answer)
- D. six

Exception handling is a type of-----?

- A. forward error recovery mechanism (Answer)
- B. backward error recovery mechanism
- C. All of the mentioned
- D. None of the mentioned

Which one is not a software quality model ?

- A. ISO 9000 (Answer)
- B. McCall model

- C. Boehm model
- D. ISO 9126

Non-occurrence of improper alteration of information is known as-----?

- A. Available Dependability
- B. Confidential Dependability
- C. Maintainable Dependability
- D. Integral Dependability (Answer)

All fault-tolerant techniques rely on-----?

- A. Integrity
- B. Dependability
- C. Redundancy (Answer)
- D. None of the mentioned

Which of the following Error Detection checks is not a part of Application detection ?

- A. Hardware checks (Answer)
- B. Timing checks
- C. Reversal checks
- D. Coding checks

Which of the following approaches are used to achieve reliable systems?

- A. Fault prevention
- B. Fault removal
- C. Fault tolerance
- D. All of the mentioned (Answer)

In N-version programming which is the independent generation of N, the value of N is-----?

- A. greater than 1
- B. less than 1
- C. greater than 2 (Answer)
- D. less than 2

It is imperative for a communicating processes to reach consistent recovery points to avoid the ----- effect, with backward error recovery mechanism ?

- A. Static
- B. Dynamic
- C. Domino (Answer)
- D. Whirlpool

A system maintaining its integrity while accepting a temporary halt in its operation is said to be in a state of-----?

- A. Full Fault Tolerance
- B. Graceful Degradation

- C. Fail Soft
- D. Fail Safe (Answer)

What type of fault remains in the system for some period and then disappears ?

- A. Permanent
- B. Transient (Answer)
- C. Intermittent
- D. All of the mentioned

NHPP stands for-----?

- A. Non Homogeneous Poisson Product
- B. Non-Hetogeneous Poisson Product
- C. Non-Hetogeneous Poisson Process
- D. Non Homogeneous Poisson Process (Answer)

Suitability, Accuracy, Interoperability, and security are what type quality attribute of ISO 9126 ?

- A. Reliability
- B. Efficiency
- C. Functionality (Answer)
- D. Usability

What is MTTF ?

- A. Maximum time to failure
- B. Mean time to failure (Answer)
- C. Minimum time to failure
- D. None of the mentioned

How many product quality factors are proposed in McCall quality model ?

- A. 2
- B. 3 (Answer)
- C. 11
- D. 8

Which of the following is not a phase of “bathtub curve” of hardware reliability ?

- A. Useful Life
- B. Burn-in
- C. Wear-out
- D. Time (Answer)

The CMM model is a technique to-----?

- A. automatically maintain the software reliability
- B. improve the software process (Answer)
- C. test the software
- D. all of the mentioned

Which one of the following is not a software quality model ?

- A. ISO 9000 (Answer)
- B. McCall model
- C. Boehm model
- D. ISO 9126

How is reliability and failure intensity related to each other ?

- A. direct relation
- B. inverse relation (Answer)
- C. no relation
- D. None of the mentioned

Which of the following term is best define by the statement: "Each object is stored only once, but is accessible by all CASE tools that need it."?

- A. Non-redundant data storage (Answer)
- B. Data independence
- C. Transaction control
- D. Ad Hoc data queries and reports

BPR stands for-----?

- A. Business process re-engineering (Answer)
- B. Business product re-engineering
- C. Business process requirements
- D. None of the mentioned

Reverse engineering of data focuses on-----?

- A. Internal data structures
- B. Database structures
- C. ALL of the mentioned (Answer)
- D. None of the mentioned

What are the problems with re-structuring ?

- A. Loss of comments
- B. Loss of documentation (Answer)
- C. Heavy computational demands
- D. All of the mentioned

When does one decides to re-engineer a product ?

- A. when tools to support restructuring are disabled
- B. when system crashes frequently
- C. when hardware or software support becomes obsolete (Answer)
- D. subsystems of a larger

Which of the following is not an example of a business process ?

- A. designing a new product

- B. hiring an employee
- C. purchasing services
- D. testing software (Answer)

Which web app attribute is defined by the statement: "The quality and aesthetic nature of content remains an important determinant of the quality of a WebApp" ?

- A. Availability
- B. Data driven
- C. Content sensitive (Answer)
- D. Continuous evolution

Which of the following is a risk associated with using hypertext in web applications?

- A. Loss of sense of locality and direction
- B. Cognitive overload for users
- C. All of the mentioned (Answer)
- D. None of the mentioned

What category of web-based system would you assign to discussion groups ?

- A. Collaborative work
- B. Online communities (Answer)
- C. Web portals
- D. Workflow-oriented

If the user queries a collection of large databases and extracts information from the webapp, the webapp is categorized under-----?

- A. Service oriented app
- B. Database access app
- C. Portal app
- D. Data warehousing app (Answer)

Which analysis is a part of Analysis model of the web engineering process framework ?

- A. Content Analysis
- B. Interaction Analysis
- C. Functional Analysis
- D. All of the mentioned (Answer)

Which web app attribute is defined by the statement: "A large number of users may access the WebApp at one time"?

- A. Unpredictable load
- B. Performance
- C. Concurrency (Answer)
- D. Network intensiveness

W3C stands for-----?

- A. World Wide Web Consortium (Answer)

- B. World Wide Web Collaboration
- C. World Wide Web Community
- D. None of the mentioned

What category of web-based system would you assign to electronic shopping ?

- A. Informational
- B. Interactive
- C. Transaction-oriented (Answer)
- D. Workflow-oriented

Which process model should be used in virtually all situations of web engineering ?

- A. Incremental Model (Answer)
- B. Waterfall Model
- C. Spiral Model
- D. None of the mentioned

MTTF stands for-----?

- A. mean-time-to-function
- B. mean-time-to-failure (Answer)
- C. manufacture-time-to-function
- D. None of the mentioned

RTOS stands for-----?

- A. real-life operating system
- B. real-time operating system (Answer)
- C. real-time operating software
- D. real-life operating software

Which of the following is not a real-time architectural pattern ----- ?

- A. Observe and React
- B. Environmental Control
- C. Embedded System (Answer)
- D. Process Pipeline

The times by which stimuli must be processed and some response produced by the system is known as-----?

- A. Compile time
- B. Frequency
- C. Deadlines (Answer)
- D. Execution time

The switch to backup power must be completed within a deadline of-----?

- A. 50 ms (Answer)
- B. 55 ms

- C. 70 ms
- D. 100 ms

Which of the following is represented as an aspect that requests a login name and password ?

- A. Class
- B. Object
- C. User authentication (Answer)
- D. All of the mentioned

Which of the following is a key principle of software design and implementation ?

- A. Separation of concerns (Answer)
- B. Writing aspects
- C. Finding code complexity
- D. None of the mentioned

The average execution time of the power monitor process should be less than-----?

- A. 1ms (Answer)
- B. 10ms
- C. 100ms
- D. None of the mentioned

An example of a system that may use a process pipeline is a -----?

- A. High-speed data acquisition system (Answer)
- B. Failure of a power supply in an embedded system
- C. Both High-speed data acquisition system AND Failure of a power supply in an emb
- D.

Research and development in aspect-orientation has primarily focused on -----?

- A. software re-engineering
- B. artificial programming
- C. aspect-oriented programming (Answer)
- D. all of the mentioned

Which of the following is not a type of stakeholder concern ?

- A. Functional concerns (Answer)
- B. Quality of service concerns
- C. Policy concern
- D. Non-functional concern

Which of the following is core concern in medical record management system ?

- A. maintaining records of patients (Answer)
- B. diagnose and treatments
- C. consultations
- D. all of the mentioned

The incorporation of advice code at the specified join points by an aspect weaver is called”-----?-----?

- A. aspect
- B. join point
- C. join point model
- D. weaving (Answer)

Which of the following concerns best suits the following statement:”Internet banking system includes new customer requirements, account Requirements, customer management requirements, security requirements, recovery requirements etc.” ?

- A. Functional concerns
- B. Quality of service concerns
- C. System concerns
- D. Cross-cutting concerns (Answer)

An event in an executing program where the advice associated with an aspect may be executed is known as-----?-----?

- A. aspect
- B. join point (Answer)
- C. join point model
- D. pointcut

Which subsystem implements the requirements defined by the application ?

- A. UI
- B. DBMS
- C. Application subsystem (Answer)
- D. None of the mentioned

Which of the following presentation is explained in the following statement:”An extension of the distributed presentation approach, primary database and application logic remain on the server, and data sent by the server is used by the client to prepare the user presentation ” ?

- A. Local Presentation
- B. Distributed presentation
- C. Remote presentation (Answer)
- D. All of the mentioned

Which of the following term is best defined by the statement:”The client sends structured query language (SQL) requests to the server which are transmitted as messages across the net” ?

- A. File servers
- B. Database servers (Answer)
- C. Client servers
- D. None of the mentioned

Which test do you infer from the following statement: “The coordination and data management functions of the server are tested.” ?

- A. Server tests (Answer)
- B. Application function tests
- C. Transaction tests
- D. Network communication tests

“A client is assigned all user presentation tasks and the processes associated with data entry”.Which option supports the client’s situation ?

- A. Distributed logic (Answer)
- B. Distributed presentation
- C. Remote presentation
- D. All of the mentioned

Which of the following term is best defined by the statement:”When one object invokes another independent object, a message is passed between the two objects.” ?

- A. Control couple
- B. Application object
- C. Data couple (Answer)
- D. Database object

What is used to pass SQL requests and associated data from one component to another ?

- A. Client/server SQL interaction (Answer)
- B. Remote procedure calls
- C. SQL Injection
- D. All of the mentioned

Which of the following services is not provided by an object ?

- A. Activating & Deactivating Objects
- B. Security features
- C. Files implementing the entities identified within the ERD (Answer)
- D. Registering object implementation

CORBA stands for -----?

- A. Common Object Request Build Architecture
- B. Common Object Request Broker Architecture (Answer)
- C. Common Object Request Break Architecture
- D. All of the mentioned

Which of the following is an essential principle of an architecture ?

- A. Consistency
- B. Reliability
- C. Scalability
- D. All of the mentioned (Answer)

Which of the following utilities is not a part of Application Service Layer ?

- A. Policy implementation
- B. QoS
- C. Security
- D. Verify invoice (Answer)

How is SOA different from OO Architecture ?

- A. Strong coupling among objects
- B. Communications are prescriptive rather than being descriptive
- C. Data is separated from a service or behavior (Answer)
- D. Data and methods

Which of the following utilities is not a part of Business Service Layer ?

- A. Task centric service
- B. Wrapper Services (Answer)
- C. Get account info
- D. Entity centric service

Which architecture describes the various elements that support the implementation of services?

- A. The Application Architecture
- B. The Service Architecture
- C. The Component Architecture (Answer)
- D. None of the mentioned

Which architecture will be built on top of a SOA ?

- A. The Application Architecture (Answer)
- B. The Service Architecture
- C. The Component Architecture
- D. None of the mentioned

Service Oriented Architecture (SOA) is-----?

- A. Strongly Coupled
- B. Loosely Coupled (Answer)
- C. Strongly Cohesive
- D. Loosely Cohesive

The ----- specifies the behavior of a system or a part of a system?

- A. Yellow box
- B. Clear box
- C. White box
- D. Black box (Answer)

The transition functions that are implied by the state box are defined in-----?

- A. Yellow box

- B. Clear box (Answer)
- C. White box
- D. Black box

What encapsulates state data and services in a manner that is analogous to objects ?

- A. State box (Answer)
- B. Clean box
- C. White box
- D. Black box

Which of the following is required for Certification for clean room software engineering ?

- A. Sampling model
- B. Component model
- C. Certification model
- D. All of the mentioned (Answer)

Cleanroom software engineering complies with the operational analysis principles by using a method called known as-----?

- A. box structure specification (Answer)
- B. referential transparency
- C. degenerative error correction
- D. None of the mentioned

Who was first to proposed the Cleanroom philosophy in software engineering ?

- A. Mills
- B. Dyer
- C. Linger
- D. All of the Mentioned (Answer)

Which of the following Cleanroom process teams develops set of statistical test to exercise software after development ?

- A. Specification team
- B. Development team (Answer)
- C. Certification team
- D. All of the mentioned

Which of the following term is best defined by the statement: "For a component to be composable, all external interactions must take place through publicly defined interfaces"?

- A. Standardized
- B. Independent
- C. Composable (Answer)
- D. Documented

Which of the following is not a dimension of scalability ?

- A. Size

- B. Distribution
- C. Manageability
- D. Interception (Answer)

QoS stands for-----?

- A. Quality of security
- B. Quality of system
- C. Quality of service (Answer)
- D. None of the mentioned

In Java,----- are comparable with, though not identical to, RPCs?

- A. Remote Method Invocations (Answer)
- B. Operating System
- C. Client-server computing
- D. None of the mentioned

Which architecture is used when there is a high volume of transactions to be processed by the server ?

- A. Multi-tier client-server architecture (Answer)
- B. Master-slave architecture
- C. Distributed component architecture
- D. Peer-to-peer architecture

----- is a way of providing functionality on a remote server with client access through a web browser?

- A. SaaS (Answer)
- B. SOA
- C. Configurability
- D. Both SaaS and Configurability

----- depend on there being a clear separation between the presentation of information and the computations that create and process that information?

- A. Master-slave architectures
- B. Client-server systems (Answer)
- C. Two-tier client-server architecture
- D. Both Master-slave architectures AND Client-server systems

Which architecture are reliant on middle-ware ?

- A. Multi-tier client-server architecture
- B. Master-slave architecture
- C. Distributed component architecture (Answer)
- D. Peer-to-peer architecture

Which of the following is a way of making a statement about the elements of a set that is true for every member of the set ?

- A. Set
- B. Sequence
- C. Universal quantification (Answer)
- D. Both Set and Sequence

Which architecture decentralized architectures in which there are no distinguished clients and servers ?

- A. Multi-tier client–server architecture
- B. Master-slave architecture
- C. Distributed component architecture
- D. Peer-to-peer architecture (Answer)

Which of the following option is not provided by formal methods ?

- A. providing frameworks
- B. verifying systems
- C. provide investors
- D. both providing frameworks and verifying systems (Answer)

What defines the circumstances in which a particular operation is valid ?

- A. Contradictions
- B. Post-condition
- C. Vagueness
- D. None of the mentioned (Answer)

The ----- of a formal specification language is often based on a syntax that is derived from standard set theory notation and predicate calculus ?

- A. semantic domain
- B. syntactic domain (Answer)
- C. sequence
- D. set

Which of the following is essential for success, when formal methods are used for the first time ?

- A. Expert training
- B. Consulting
- C. Prerequisite knowledge
- D. Both Expert training and Consulting (Answer)

The ----- of a specification language indicates how the language represents system requirements?

- A. semantic domain (Answer)
- B. syntactic domain
- C. sequence
- D. set

Which of the following provides a concise, unambiguous, and consistent method for documenting system requirements ?

- A. CMM
- B. ISO-9001
- C. CASE tools
- D. Formal methods (Answer)

Which of the following occurs often due to the bulkiness of a system specification document ?

- A. Contradictions
- B. Ambiguities
- C. Vagueness (Answer)
- D. Incompleteness

----- are statements that can be interpreted in a number of ways?

- A. Contradictions (Answer)
- B. Ambiguities
- C. Vagueness
- D. Comments

Frameworks are an effective approach to reuse, but are ----- to introduce into software development processes.

- A. difficult
- B. expensive
- C. unreliable
- D. difficult and expensive (Answer)

Which option supports the statement: "Most web frameworks now provide AJAX support" ?

- A. Session Management
- B. Security
- C. User interaction (Answer)
- D. Database support

Which framework's applications are difficult to deal with ?

- A. MVC pattern
- B. Web application frameworks
- C. Debugging framework (Answer)
- D. None of the mentioned

MVC framework includes-----?

- A. Observer pattern
- B. Strategy pattern
- C. Composite pattern
- D. All of the mentioned (Answer)

Which frameworks support the development of system infrastructures such as communications, user interfaces, and compilers ?

- A. Middleware integration frameworks
- B. System infrastructure framework (Answer)
- C. Enterprise application frameworks
- D. Web application frameworks

Which of the following is not a benefit of software reuse ?

- A. Standards compliance
- B. Increased Reliability
- C. Reduced Process risk (Answer)
- D. Maintaining a component library

Which category the following statement belongs,"Frameworks don't usually include a database but rather assume that a separate database such as MySQL"?

- A. Session management
- B. Security
- C. User interaction
- D. Database support (Answer)

Which category the following statement belongs,"Classes to create and manage sessions are usually part of a WAF"?

- A. Session management (Answer)
- B. Security
- C. User interaction
- D. Database support

The MVC pattern was originally proposed in the 1980s as an approach to-----?

- A. Web application frameworks
- B. Middleware integration frameworks
- C. Web application frameworks
- D. GUI design (Answer)

In which of the following language the frameworks will not work ?

- A. C#
- B. Ruby
- C. PHP (Answer)
- D. Java

ERP stands for-----?

- A. Effective Reuse Planning
- B. Enterprise Resource Planning (Answer)
- C. Effective Research Planning
- D. None of the mentioned

Which of the following is a generic structure that is extended to create a more specific subsystem or application ?

- A. Software reuse
- B. Object-oriented programming language
- C. Framework (Answer)
- D. None of the mentioned

What are generic application systems that may be designed to support a particular business type, activity, or sometimes a complete enterprise ?

- A. COTS-solution systems (Answer)
- B. COTS-integrated systems
- C. ERP systems
- D. Both COTS-solution and COTS-integrated systems

Which framework class include standards and classes that support component communication and information exchange?

- A. System infrastructure frameworks
- B. Middleware integration frameworks (Answer)
- C. Enterprise application frameworks
- D. MVC

An ordering system may be adapted to cope with a centralized ordering process in one company and a distributed process in another.” Which category the example belong to ?

- A. Process specialization (Answer)
- B. Platform specialization
- C. Environment specialization
- D. Functional specialization

The open source movement has meant that there is a huge reusable code base available at -----? -----?

- A. free of cost
- B. low cost (Answer)
- C. high cost
- D. short period of time

NET are specific to which platform ?

- A. Java
- B. Mac-OS
- C. Microsoft (Answer)
- D. LINUX

Consider the example and categorize it accordingly, “A pattern-matching system developed as part of a text-processing system may be reused in a database management system”?

- A. Application system reuse
- B. Component reuse (Answer)

- C. Object and function reuse
- D. None of the mentioned

COTS stands for-----?

- A. Commercial Off-The-Shelf systems (Answer)
- B. Commercial Off-The-Shelf states
- C. Commercial Off-The-System state
- D. None of the mentioned

Which of the following is a dynamic model that shows how the system interacts with its environment as it is used ?

- A. system context model
- B. interaction model (Answer)
- C. environmental model
- D. both system context and interaction

Which of the following is a structural model that demonstrates the other systems in the environment of the system being developed ?

- A. system context model (Answer)
- B. interaction model
- C. environmental model
- D. both system context and interaction

Which of the following is not needed to develop a system design from concept to detailed object-oriented design ?

- A. Designing system architecture
- B. Developing design models
- C. Specifying interfaces
- D. Developing a debugging system (Answer)

Which of the following come under system control ?

- A. Reconfigure
- B. Shutdown
- C. Powersave
- D. All of the mentioned (Answer)

Which model shows the flow of object interactions?

- A. Sequence model (Answer)
- B. Subsystem model
- C. Dynamic model
- D. Both Sequence and Dynamic model

We use ----- where various parts of system use are identified and analyzed in turn?

- A. tangible entities
- B. scenario-based analysis (Answer)

- C. design-based analysis
- D. None of the mentioned

If the system state is Shutdown then it can respond to which of the following message?

- A. restart()
- B. reconfigure()
- C. powerSave()
- D.all of the mentioned (Answer)

Which model describes the static structure of the system using object classes and their relationships ?

- A. Sequence model
- B. Subsystem model
- C. Dynamic model
- D.Structural model (Answer)

Which message is received so that the system moves to the Testing state, then the Transmitting state, before returning to the Running state ?

- A. signalStatus()
- B. remoteControl()
- C. reconfigure()
- D.reportStatus() (Answer)

A description of each function presented in the DFD is contained in a -----?

- A. data flow
- B. process specification (Answer)
- C. control specification
- D. data store

A data model contains-----?

- A. data object
- B. attributes
- C. relationships
- D.all of the mentioned (Answer)

Which diagram indicates the behaviour of the system as a consequence of external events ?

- A. data flow diagram
- B. state transition diagram (Answer)
- C. control specification diagram
- D. workflow diagram

----- defines the properties of a data object and take on one of the three different characteristics ?

- A. data object
- B. attributes (Answer)

- C. relationships
- D. data object and attributes

The ----- of a relationship is 0 if there is no explicit need for the relationship to occur or the relationship is optional ?

- A. modality (Answer)
- B. cardinality
- C. entity
- D. structured analysis

The ----- contains a state transition diagram that is a sequential specification of behavior?

- A. data flow diagram
- B. state transition diagram
- C. control specification (Answer)
- D. workflow diagram

A ----- is a graphical representation that depicts information flow and the transforms that are applied as data moves from input to output?

- A. data flow diagram
- B. state transition diagram (Answer)
- C. control specification
- D. workflow diagram

The ----- enables the software engineer to develop models of the information domain and functional domain at the same time-----?

- A. data flow diagram (Answer)
- B. state transition diagram
- C. control specification
- D. activity diagram

----- is a pidgin(simplified version of a language that develops as a means of communication between two or more groups that do not have a language in common)?

- A. program design language
- B. structured English
- C. pseudocode
- D.all of the mentioned (Answer)

Which of the following term is best defined by the statement:"The ability to represent local and global data is an essential element of component-level design." ?

- A. Data representation (Answer)
- B. Logic verification
- C. "Code-to" ability
- D. Automatic processing

Which diagram evolved from a desire to develop a procedural design representation that would not allow violation of the structured constructs ?

- A. State transition diagram
- B. Box diagram (Answer)
- C. ER diagram
- D. None of the mentioned

A ----- executes the loop task first, then tests a condition and repeats the task until the condition fails ?

- A. repeat until (Answer)
- B. condition
- C. do while tests
- D. if then-else

The----- is represented as two processing boxes connected by an line (arrow) of control ?

- A. Repetition
- B. Sequence (Answer)
- C. Condition
- D. None of the mentioned

Which of the following is not a design principle that allow the user to maintain control ?

- A. Provide for flexible interaction
- B. Allow user interaction to be interrupt-able and undo-able
- C. Show technical internals from the casual user (Answer)
- D. Design for direc

Which of the following term is best defined by the statement “Notation that can be input directly into a computer-based development system offers significant benefits.” ?

- A. Machine readability (Answer)
- B. Maintainability
- C. Structure enforcement
- D. Overall simplicity

Which of the following is golden rule for interface design ?

- A. Place the user in control
- B. Reduce the user’s memory load
- C. Make the interface consistent
- D. All of the mentioned (Answer)

Which of the following is not a user interface design process ?

- A. User, task, and environment analysis and modeling
- B. Interface design
- C. Knowledgeable, frequent users (Answer)
- D. Interface validation

What incorporates data, architectural, interface, and procedural representations of the software ?

- A. design model (Answer)
- B. user's model
- C. mental image
- D. system image

When users are involved in complex tasks, the demand on ----- can be significant?

- A. short-term memory (Answer)
- B. shortcuts
- C. objects that appear on the screen
- D. all of the mentioned

A software might allow a user to interact via-----?

- A. keyboard commands
- B. mouse movement
- C. voice recognition commands
- D.all of the mentioned (Answer)

What establishes the profile of end-users of the system ?

- A. design model
- B. user's model (Answer)
- C. mental image
- D. system image

Which of the following is not a part of a test design document ?

- A. Test Plan
- B. Test Design Specification
- C. Test Case Specification
- D.Test Log (Answer)

A set of inputs, execution preconditions and expected outcomes is known as a -----?

- A. Test plan
- B. Test case (Answer)
- C. Test document
- D. Test Suite

What combines the outward manifestation of the computer-based system , coupled with all supporting information that describe system syntax and semantics ?

- A. mental image
- B. interface design
- C. system image (Answer)
- D. interface validation

Which of the following is a black box testing strategy ?

- A. All Statements Coverage
- B. Control Structure Coverage
- C. Cause-Effect Graphs (Answer)
- D. All Paths Coverage

Which granularity level of testing checks the behavior of module cooperation ?

- A. Unit Testing
- B. Integration Testing (Answer)
- C. Acceptance Testing
- D. Regression Testing

What do you understand by V&V in software testing ?

- A. Verified Version
- B. Version Validation
- C. Verification and Validation (Answer)
- D. Version Verification

Which test refers to the retesting of a unit, integration and system after modification, in order to ascertain that the change has not introduced new faults ?

- A. Regression Test (Answer)
- B. Smoke Test
- C. Alpha Test
- D. Beta Test

In which test design each input is tested at both ends of its valid range and just outside its valid range ?

- A. Boundary value testing
- B. Equivalence class partitioning (Answer)
- C. Boundary value testing AND Equivalence class partitioning
- D. Decision tables

When does the testing process stops ?

- A. When resources (time and budget) are over
- B. When some coverage is reached
- C. When quality criterion is reached (Answer)
- D. Testing never ends

Specifying a set of test cases or test paths for each item to be tested at that level is known as-----?

- A. Test case generation
- B. Test case design
- C. ALL of the mentioned (Answer)
- D. None of the mentioned

You want to avoid multiple inheritance. Which design pattern would you choose ?

- A. Abstraction-Occurrence Pattern
- B. Player-Role Pattern (Answer)
- C. General Hierarchy Pattern
- D. Singleton Pattern

Which design pattern defines one-to-many dependency among objects ?

- A. Singleton pattern
- B. Facade Pattern
- C. Observer pattern (Answer)
- D. Factory method pattern

Which pattern prevents one from creating more than one instance of a variable ?

- A. Factory Method
- B. Singleton (Answer)
- C. Observer
- D. None of the mentioned

Which of the following is a design pattern?

- A. Behavioral
- B. Structural
- C. Abstract Factory
- D. All of the mentioned (Answer)

The recurring aspects of designs are called design-----?

- A. patterns (Answer)
- B. documents
- C. structures
- D. methods

You want to minimize development cost by reusing methods? Which design pattern would you choose ?

- A. Adapter Pattern
- B. Singleton Pattern
- C. Delegation pattern (Answer)
- D. Immutable Pattern

PRD stands for-----?

- A. Product Requirement Document (Answer)
- B. Project Requirement Document
- C. Product Restrictions Document
- D. None of the mentioned

The use of design patterns for the development of object-oriented software has important implications for-----?

- A. Component-based
- B. Reusability in general
- C. All of the mentioned (Answer)
- D. None of the mentioned

Which mechanism is applied to use a design pattern in an OO system ?

- A. Inheritance
- B. Composition
- C. All of the mentioned (Answer)
- D. None of the mentioned

How many diagrams are here in Unified Modelling Language ?

- A. six
- B. seven
- C. eight
- D. nine (Answer)

Interaction Diagram is a combined term for-----?

- A. Sequence Diagram + Collaboration Diagram (Answer)
- B. Activity Diagram + State Chart Diagram
- C. Deployment Diagram + Collaboration Diagram
- D. None of the mentioned

Which diagram in UML shows a complete or partial view of the structure of a modeled system at a specific time ?

- A. Sequence Diagram
- B. Collaboration Diagram
- C. Class Diagram
- D. Object Diagram (Answer)

Which of the following UML diagrams has a static view ?

- A. Collaboration
- B. Use case (Answer)
- C. State chart
- D. Activity

Which of the following term is best defined by the statement: "a structural relationship that specifies that objects of one thing are connected to objects of another" ?

- A. Association (Answer)
- B. Aggregation
- C. Realization
- D. Generalization

Classes and interfaces are a part of-----?

- A. Structural things (Answer)

- B. Behavioral things
- C. Grouping things
- D. Annotational things

Which things are dynamic parts of UML models ?

- A. Structural things
- B. Behavioral things (Answer)
- C. Grouping things
- D. Annotational things

What is a collection of operations that specify a service of a class or component ?

- A. Use Case
- B. Actor
- C. Interface (Answer)
- D. Relationship

What can be requested from any object of the class to affect behavior ?

- A. object
- B. attribute
- C. operation (Answer)
- D. instance

Which diagram in UML emphasizes the time-ordering of messages ?

- A. Activity
- B. Sequence (Answer)
- C. Collaboration
- D. Class

If you are working on real-time process control applications or systems that involve concurrent processing, you would use a-----?

- A. Activity diagram
- B. Sequence diagram
- C. Statechart diagram (Answer)
- D. Object diagram

Which things in UML are the explanatory parts of UML models ?

- A. Structural things
- B. Behavioral things
- C. Grouping things
- D. Annotational things (Answer)

What refers to the value associated with a specific attribute of an object and to any actions or side ?

- A. Object
- B. State (Answer)

- C. Interface
- D. None of the mentioned

Which diagram shows the configuration of run-time processing elements ?

- A. Deployment diagram (Answer)
- B. Component diagram
- C. Node diagram
- D. ER-diagram

What is a physical element that exists at runtime in UML ?

- A. A node (Answer)
- B. An interface
- C. An activity
- D. None of the mentioned

Which of the following is a building block of UML ?

- A. Things
- B. Relationships
- C. Diagrams
- D. All of the mentioned (Answer)

At Conceptual level Class diagrams should include-----?

- A. operations only
- B. attributes only (Answer)
- C. both operations and attributes
- D. None of the mentioned

What is an object-----?

- A. An object is an instance of a class (Answer)
- B. An object includes encapsulation of data
- C. An object is not an instance of a class
- D. All of the mentioned

Which of the following are the valid relationships in Use Case Diagrams-----?

- A. Generalization
- B. Include
- C. Extend
- D. All of the mentioned (Answer)

UML interfaces are used to-----?

- A. specify required services for types of objects (Answer)
- B. program in Java, but not in C++ or Smalltalk
- C. define executable logic to reuse across classes
- D. define an API

ERP stands for-----?

- A. Enterprise Research Planning
- B. Enterprise Resource Planning (Answer)
- C. Enterprise Resource Package
- D. Enterprise Research Package

All the operations in a transaction need to be completed before the database changes are made -----?

- A. functional
- B. available to the users (Answer)
- C. permanent
- D. None of the mentioned

Systems that involve interaction with a shared database can be considered as ?

- A. software-based
- B. transaction-based (Answer)
- C. server-based
- D. client-based

A language-processing systems may translate an XML data description into-----?

- A. a machine code
- B. an alternative XML representation
- C. machine code and alternative XML representation (Answer)
- D. a software module

What translates a natural or an artificial language into another representation of that language and, for programming languages also execute the resulting code ?

- A. ERP systems
- B. Transaction-based information systems
- C. Language processing systems (Answer)
- D. None of the mentioned

Which of the following is/are commonly used architectural pattern(s) ?

- A. Model-View-Controller
- B. Layered Architecture
- C. Client-server
- D. All of the mentioned (Answer)

Transaction processing systems may be organized as a ----- architecture with system components responsible for input, processing, and output ?

- A. Repository
- B. Client-server
- C. Model-View-Controller
- D. Pipe and Filter (Answer)

Which of the following examples is/are models of application architectures ?

- A. a means of assessing components for reuse
- B. a design checklist
- C. a vocabulary for talking about types of applications
- D. all of the mentioned (Answer)

Control systems may make use of the Environmental Control pattern, which is a general control pattern that includes -----processes?

- A. sensor
- B. actuator
- C. pipeline
- D. both sensor and actuator (Answer)

Which of the following is applicable on software radio ?

- A. Environmental Control
- B. Process Pipeline (Answer)
- C. Distributed system
- D. None of the mentioned

A monitoring system examines its environment through -----?

- A. operating system
- B. communication
- C. set of sensors (Answer)
- D. None of the mentioned

ETL stands for-----?

- A. Data Extraction Transformation & Loading (Answer)
- B. Data Execution Transformation & Loading
- C. Extraction Transformation & Loading
- D. Execution Transformation

----- can be associated with a separate processor or core, so that the processing steps can be carried out in parallel ?

- A. Process Pipeline (Answer)
- B. Environmental Control
- C. Observe and React
- D. None of the mentioned

An example of a system that may use a process pipeline is a high-speed-----?

- A. data distributing system
- B. data acquisition system (Answer)
- C. data collector system
- D. None of the mentioned

Which of these following sensor is a useful as part of a burglar alarm system for commercial buildings ?

- A. Movement detector
- B. Door sensor
- C. Window sensor
- D. All of the mentioned (Answer)

Which of the following is not real-time architectural patterns that are commonly used ?

- A. Asynchronous communication (Answer)
- B. Observe and React
- C. Environmental Control
- D. Process Pipeline

The UML was designed for describing -----?

- A. object-oriented systems
- B. architectural design
- C. SRS
- D. Both object-oriented systems and Architectural design (Answer)

What describes how a set of interacting components can share data ?

- A. model-view-controller
- B. architecture pattern
- C. repository pattern (Answer)
- D. None of the mentioned

Which of the following view shows that the system is composed of interacting processes at run time ?

- A. physical
- B. development
- C. logical
- D. process (Answer)

Which of the following is not included in Architectural design decisions ?

- A. type of application
- B. distribution of the system
- C. architectural styles
- D. testing the system (Answer)

Which of the following pattern is the basis of interaction management in many web-based systems ?

- A. architecture
- B. repository pattern
- C. model-view-controller (Answer)
- D. different operating system

Which view in architectural design shows the key abstractions in the system as objects or object classes ?

- A. physical
- B. development
- C. logical (Answer)
- D. process

----- view shows the system hardware and how software components are distributed across the processors in the system ?

- A. physical (Answer)
- B. logical
- C. process
- D. all of the mentioned

A project usually has a timeline chart which was developed by-----?

- A. Henry Gantt (Answer)
- B. Barry Boehm
- C. Ivar Jacobson
- D. None of the mentioned

What is a collection of software engineering work tasks, milestones, and deliverables that must be accomplished to complete a particular project ?

- A. Task set (Answer)
- B. Degree of milestone
- C. Adaptation criteria
- D. All of the mentioned

Every task that is scheduled should be assigned to a specific team member is termed as-----?

- A. Compartmentalization
- B. Defined milestones
- C. Defined responsibilities (Answer)
- D. Defined outcomes

Ensuring that no more than the allocated number of people are allocated at any given time in Software Scheduling is known as -----?

- A. Time Allocation
- B. Effort Validation (Answer)
- C. Defined Milestone
- D. Effort Distribution

What evaluates the risk associated with the technology to be implemented as part of project scope ?

- A. Concept scoping
- B. Preliminary concept planning (Answer)

- C. Technology risk assessment
- D. Customer reaction to the concept

Which of the following is a project scheduling method that can be applied to software development ?

- A. PERT
- B. CPM
- C. CMM
- D. Both PERT and CPM (Answer)

What is used to determine the recommended degree of rigor with which the software process should be applied on a project ?

- A. Degree of Rigor
- B. Adaptation criteria (Answer)
- C. Task Set
- D. Both degree of Rigor and adaptation criteria

A technique for performing quantitative analysis of progress is known as-----?

- A. BCWS
- B. EVA (Answer)
- C. BAC
- D. CBSE

Which of the following is not an adaptation criteria for software projects ?

- A. Size of the project
- B. Customers Complaints (Answer)
- C. Project staff
- D. Mission criticality

Which of the following categories is part of the output of software process ?

- A. computer programs
- B. documents that describe the computer programs
- C. data
- D. all of the mentioned (Answer)

Software Configuration Management can be administered in several ways. These include -----?

- A. A single software configuration management team for the whole organization (Answer)
- B. A separate configuration management team for each project
- C. Software Configuration Manage
- D.

What is the recommended distribution of effort for a project ?

- A. 40-20-40 (Answer)
- B. 50-20-30

- C. 30-40-30
- D. 50-30-20

Which is a software configuration management concept that helps us to control change without seriously impeding justifiable change ?

- A. Baselines (Answer)
- B. Source code
- C. Data model
- D. None of the mentioned

What combines procedures and tools to manage different versions of configuration objects that are created during the software process ?

- A. Change control
- B. Version control (Answer)
- C. SCIs
- D. None of the mentioned

Which of the following is the process of assembling program components, data, and libraries, and then compiling and linking these to create an executable system ?

- A. System building (Answer)
- B. Release management
- C. Change management
- D. Version management

Which of the following is not a Software Configuration Management Activity ?

- A. Configuration item identification
- B. Risk management (Answer)
- C. Release management
- D. Branch management

What complements the formal technical review by assessing a configuration object for characteristics that are generally not considered during review ?

- A. Software configuration audit (Answer)
- B. Software configuration management
- C. Baseline
- D. None of the mentioned

Which of the following option is not tracked by configuration management tools ?

- A. Tracking of change proposals
- B. Storing versions of system components
- C. Tracking the releases of system versions to customers
- D. None of the mentioned (Answer)

The definition and use of configuration management standards is essential for quality certification in-----?

- A. ISO 9000
- B. CMM
- C. CMMI
- D. All of the mentioned (Answer)

Which of the following process ensures that versions of systems and components are recorded and maintained?

- A. Codeline
- B. Configuration control (Answer)
- C. Version
- D. Workspace

What involves preparing software for external release and keeping track of the system versions that have been released for customer use ?

- A. System building
- B. Release management (Answer)
- C. Change management
- D. Version management

Which of the following process is concerned with analyzing the costs and benefits of proposed changes ?

- A. Change management (Answer)
- B. Version management
- C. System building
- D. Release management

Which method recommends that very frequent system builds should be carried out with automated testing to discover software problems ?

- A. Agile method (Answer)
- B. Parallel compilation method
- C. Large systems method
- D. All of the mentioned

Which of the following is not a Version management feature ?

- A. Version and release identification
- B. Build script generation (Answer)
- C. Project support
- D. Change history recording

Which of the following is not a build system feature ?

- A. Minimal recompilation
- B. Documentation generation
- C. Storage management (Answer)
- D. Reporting

Which of the following is a configuration item ?

- A. Design & Test specification
- B. Source code
- C. Log information
- D. All of the mentioned (Answer)

**A sequence of baselines representing different versions of a system is known as -----
--?**

- A. System building
- B. Mainline (Answer)
- C. Software Configuration Item (SCI)
- D. None of the mentioned

Which of the following is a collection of component versions that make up a system ?

- A. Version
- B. Codeline
- C. Baseline (Answer)
- D. None of the mentioned

Which of the following term is best defined by the statement “The creation of a new codeline from a version in an existing codeline” ?

- A. Branching (Answer)
- B. Merging
- C. Codeline
- D. Mainline

Which activity sits at the core of software requirements analysis ?

- A. Problem decomposition
- B. Partitioning
- C. Problem elaboration
- D. All of the mentioned (Answer)

What assess the risk and your plans for risk mitigation and revise these when you learn more about the risk ?

- A. Risk monitoring (Answer)
- B. Risk planning
- C. Risk analysis
- D. Risk identification

Risk management is one of the most important jobs for a-----?

- A. Client
- B. Investor
- C. Production team
- D. Project manager (Answer)

Which of the following term is best defined by the statement: “The underlying technology on which the system is built is superseded by new technology.” ?

- A. Technology change (Answer)
- B. Product competition
- C. Requirements change
- D. None of the mentioned

Which of the following risks are derived from the organizational environment where the software is being developed ?

- A. People risks
- B. Technology risks
- C. Estimation risks
- D. Organizational risks (Answer)

Which of the following term is best defined by the statement: “Derive traceability information to maximize information hiding in the design.” ?

- A. Underestimated development time
- B. Organizational restructuring
- C. Requirements changes (Answer)
- D. None of the mentioned

Who suggested the four different approaches to the sizing problem ?

- A. Putnam
- B. Myers
- C. Boehm
- D. Putnam and Myers (Answer)

Which of the following is not one of the five information domain characteristics of Function Point (FP) decomposition ?

- A. External inputs
- B. External outputs
- C. External process (Answer)
- D. External inquiries

V Programming language experience is a part of which factor of COCOMO cost drivers ?

- A. Personnel Factor (Answer)
- B. Product Factor
- C. Platform Factor
- D. Project Factor

PM-CMM stands for-----?

- A. people management capability maturity model (Answer)
- B. process management capability maturity model
- C. product management capability maturity model
- D. project management

Who defines the business issues that often have significant influence on the project ?

- A. Practitioners
- B. Project managers
- C. Senior managers (Answer)
- D. None of the mentioned

Which of the following is not a sign that indicates that an information systems project is in jeopardy?

- A. Software people don't understand their customers needs
- B. Changes are managed poorly
- C. Sponsorship is gained (Answer)
- D. Users are resistant

Which of the following is a collection of project coordination technique ?

- A. Formal approaches
- B. Formal, interpersonal procedures
- C. Informal, interpersonal procedures
- D. All of the mentioned (Answer)

Commitments to unrealistic time and resource estimates may result in-----?

- A. project delay
- B. poor quality work
- C. project failure
- D. all of the mentioned (Answer)

Which of the following is not a project manager's activity ?

- A. project control
- B. project management
- C. project planning
- D. project design (Answer)

Who delivers the technical skills that are necessary to engineer a product or an application ?

- A. Practitioners (Answer)
- B. Project managers
- C. Senior managers
- D. None of the mentioned

Which of the following is a people-intensive activity ?

- A. Problem solving
- B. Organization
- C. Motivation
- D. Project management (Answer)

Which software engineering team has no permanent leader ?

- A. Controlled decentralized (CD)

- B. Democratic decentralized (DD) (Answer)
- C. Controlled Centralized (CC)
- D. None of the mentioned

COCOMO stands for-----?

- A. Constructive cost model (Answer)
- B. Comprehensive cost model
- C. Constructive cost estimation model
- D. Complete cost estimation model

Which one is not a risk management activity ?

- A. Risk assessment
- B. Risk generation (Answer)
- C. Risk control
- D. None of the mentioned

Which of the following uses empirically derived formulas to predict effort as a function of LOC or FP ?

- A. FP-Based Estimation
- B. Process-Based Estimation
- C. COCOMO
- D.Both FP-Based Estimation and COCOMO (Answer)

Which version of COCOMO states that once requirements have been stabilized, the basic software architecture has been established ?

- A. Early design stage model (Answer)
- B. Post-architecture-stage model
- C. Application composition model
- D. All of the mentioned

Which model was used during the early stages of software engineering, when prototyping of user interfaces, consideration of software and system interaction, assessment of performance, and evaluation of technology maturity were paramount ?

- A. Early design stage model
- B. Post-architecture-stage model
- C. Application composition model (Answer)
- D. All of the mentioned

COCOMO was developed initially by ----- ?

- A. B.Beizer
- B. Rajiv Gupta
- C. B.W.Bohem (Answer)
- D. Gregg Rothermal

COCOMO-II was developed at -----?

- A. University of Texas
- B. University of Southern California (Answer)
- C. MIT
- D. IIT-Kanpur

What all has to be identified as per risk identification ?

- A. Threats
- B. Vulnerabilities
- C. Consequences
- D. All of the mentioned (Answer)

Which one is not a size measure for software product ?

- A. LOC
- B. Halstead's program length
- C. Function Count
- D. Cyclomatic Complexity (Answer)

Estimation of size for a project is dependent on-----?

- A. Cost
- B. Time
- C. Schedule
- D. None of the mentioned (Answer)

Which one is not a stage of COCOMO-II ?

- A. Early design estimation model (Answer)
- B. Application Composition estimation model
- C. Comprehensive cost estimation model
- D. Post architecture estimation model

Which model assumes that systems are created from reusable components, scripting or database programming ?

- A. An application-composition model (Answer)
- B. A post-architecture model
- C. A reuse model
- D. An early design model

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)

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 (Answer)
- D. An early design model

Which of the following states that work expands to fill the time available ?

- A. CASE tools
- B. Pricing to win
- C. Parkinson's Law (Answer)
- D. Expert judgement

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 (Answer)
- D. Parkinson's Law

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 (Answer)
- D. Costs of support staff

A ----- is developed using historical cost information that relates some software metric to the project cost ?

- A. Algorithmic cost modelling (Answer)
- B. Expert judgement
- C. Estimation by analogy
- D. Parkinson's Law

A number of independent investigators have developed a team-oriented approach to requirements gathering that can be applied to establish the scope of a project called ?

- A. JAD
- B. CLASS
- C. FAST (Answer)
- D. None of the mentioned

CLSS stands for-----?

- A. conveyor line sorting system (Answer)
- B. conveyor line sorting software
- C. conveyor line sorting speed
- D. conveyor line sorting specification

The environment that supports the software project is called-----?

- A. CLSS
- B. SEE (Answer)
- C. FAST
- D. CBSE

What is related to the overall functionality of the delivered software ?

- A. Function-related metrics (Answer)
- B. Product-related metrics
- C. Size-related metrics
- D. None of the mentioned

Which of the following is not achieved by an automated estimation tools ?

- A. Predicting staffing levels
- B. Predicting software cost
- C. Predicting software schedules
- D. Predicting clients demands (Answer)

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)

What can be used to complement decomposition techniques and offer a potentially valuable estimation approach in their own right ?

- A. Automated estimation tools
- B. Empirical estimation models (Answer)
- C. Decomposition techniques
- D. Both Automated estimation tools and Empirical estimation models

The project planner examines the statement of scope and extracts all important software functions which is known as-----?

- A. Association
- B. Decomposition (Answer)
- C. Planning process
- D. All of the mentioned

Which of the following is not considered as a risk in project management ?

- A. Specification delays
- B. Product competition
- C. Testing (Answer)
- D. Staff turnover

A 66.6% risk is considered as-----?

- A. very low
- B. low
- C. moderate
- D. high (Answer)

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)

Which of the following is an important factor that can affect the accuracy and efficacy of estimates ?

- A. Project size (Answer)
- B. Planning process
- C. Project complexity
- D. Degree of structural uncertainty

What describes the data and control to be processed ?

- A. Planning process
- B. Software scope (Answer)
- C. External hardware
- D. Project complexity

Quality planning is the process of developing a quality plan for-----?

- A. team
- B. project (Answer)
- C. customers
- D. project manager

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 (Answer)
- D. All of the mentioned

Which of the following is incorrect activity for the configuration management of a software system ?

- A. Internship management (Answer)
- B. Change management
- C. Version management
- D. System management

Cost and schedule are a part of-----?

- A. Product Metrics
- B. Process Metrics
- C. Project Metrics (Answer)
- D. All of the mentioned

Number of errors found per person hours expended is an example of a-----?

- A. measurement
- B. measure
- C. metric (Answer)
- D. all of the mentioned

Size and Complexity are a part of-----?

- A. Product Metrics (Answer)
- B. Process Metrics
- C. Project Metrics
- D. All of the mentioned

Which of the following is not categorized under Product Operation of McCall's Software Quality Factors ?

- A. Flexibility (Answer)
- B. Reliability
- C. Usability
- D. Integrity

Which of the following is not categorized under Component-Level Design Metrics ?

- A. Complexity Metrics
- B. Cohesion Metrics
- C. Morphology Metrics (Answer)
- D. Coupling Metrics

MTTC falls the the category of-----?

- A. correctness
- B. integrity
- C. maintainability (Answer)
- D. all of the mentioned

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)

Percentage of modules that were inspected is a part of-----?

- A. Product Metrics

- B. Process Metrics (Answer)
- C. Project Metrics
- D. All of the mentioned

Usability in metric analysis is defined as the degree to which the software-----?

- A. stated needs
- B. is easy to use (Answer)
- C. makes optimal use of system resources
- D. None of the mentioned

In DFDs, user interactions with the system is denoted by -----?

- A. Circle (Answer)
- B. Arrow
- C. Rectangle
- D. Triangle

Structured Analysis is based on the principles of-----?

- A. Top-down decomposition approach
- B. Divide and conquer principle
- C. Graphical representation of results using DFDs
- D. All of the mentioned (Answer)

Function-oriented design techniques starts with functional requirements specified in-----?

- A. SDD
- B. SRS (Answer)
- C. All of the mentioned
- D. None of the mentioned

Choose the option that does not define Function Oriented Software Design ?

- A. It consists of module definitions
- B. Modules represent data abstraction (Answer)
- C. Modules support functional abstraction
- D. None of the mentioned

Which of the following is the worst type of module cohesion ?

- A. Logical Cohesion
- B. Temporal Cohesion
- C. Functional Cohesion
- D. Coincidental Cohesion (Answer)

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

- A. Functional Cohesion
- B. Temporal Cohesion (Answer)

- C. Functional Cohesion
- D. Sequential Cohesion

Which of the following is a complementary approach to function-oriented approach ?

- A. Object oriented analysis
- B. Object oriented design
- C. Structured approach
- D. Both Object oriented analysis and design (Answer)

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

- A. Control Coupling
- B. Stamp Coupling (Answer)
- C. External Coupling
- D. Content Coupling

Which of the following is the best type of module cohesion ?

- A. Functional Cohesion (Answer)
- B. Temporal Cohesion
- C. Functional Cohesion (Answer)
- D. Sequential Cohesion

Which of the following is the worst type of module coupling ?

- A. Control Coupling
- B. Stamp Coupling
- C. External Coupling (Answer)
- D. Content Coupling

----- is a measure of the degree of interdependence between modules ?

- A. Cohesion
- B. Coupling (Answer)
- C. None of the mentioned
- D. All of the mentioned

Java packages and Fortran subroutine are examples of-----?

- A. Functions
- B. Modules (Answer)
- C. Classes
- D. Sub procedures

Which of the following is the best type of module coupling ?

- A. Control Coupling
- B. Stamp Coupling
- C. Data Coupling (Answer)
- D. Content Coupling

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 (Answer)

**The importance of software design can be summarized in a single word which is-----
--?**

- A. Efficiency
- B. Accuracy
- C. Quality (Answer)
- D. Complexity

Debugging is-----?

- A. creating program code
- B. finding and correcting errors in the program code (Answer)
- C. identifying the task to be computerized
- D. creating the algorithm

----- 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)

Which tool is use for structured designing ?

- A. Program flowchart
- B. Structure chart (Answer)
- C. Data-flow diagram
- D. Module

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)

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)

Which is the first step in the software development life cycle ?

- A. Analysis
- B. Design
- C. Problem/Opportunity Identification (Answer)
- D. Development and Documentation

Who designs and implement database structures ?

- A. Programmers
- B. Project managers
- C. Technical writers
- D. Database administrators (Answer)

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 (Answer)
- D. design

In Design phase, which is the primary area of concern ?

- A. Architecture
- B. Data
- C. Interface
- D. All of the mentioned (Answer)

Static Analysis involves executing a program ?

- A. True
- B. False (Answer)
- C.
- D.

Which of the following is a technique covered in Static Analysis ?

- A. Formal verification
- B. Model checking
- C. Automated program analysis
- D. All of the mentioned (Answer)

Which of the following is incorrect with respect to Model Checking ?

- A. Model checking is particularly valuable for verifying concurrent systems
- B. Model checking is computationally very inexpensive (Answer)
- C. The model checker explores all possible
- D.

The records of each patient that is receiving or has received treatment resembles which security concept ?

- A. Asset (Answer)
- B. Threat
- C. Vulnerability
- D. Control

Choose the fault class in which the following automated static analysis check would fall: "Variables declared but never used"?

- A. Control Faults
- B. Data Faults (Answer)
- C. Input/Output Faults
- D. Interface faults

Choose the fault class in which the following automated static analysis check would fall: "Non-usage of the results of functions"?

- A. Storage management faults
- B. Data Faults
- C. Input/Output Faults
- D. Interface faults (Answer)

Which level of Static Analysis allows specific rules that apply to a program to be checked ?

- A. Characteristic error checking
- B. User-defined error checking (Answer)
- C. Assertion checking
- D. All of the mentioned

Choose the fault class in which the following automated static analysis check would fall: "Unreachable code"?

- A. Control Faults (Answer)
- B. Data Faults
- C. Input/Output Faults
- D. Interface faults

Static analysis is now routinely used in the development of many safety and security critical systems?

- A. True (Answer)
- B. False
- C.
- D.

Choose the fault class in which the following automated static analysis check would fall: "Pointer Arithmetic" ?

- A. Storage management faults (Answer)
- B. Data Faults
- C. Input/Output Faults
- D. Interface faults

An impersonation of an authorised user is an example of a security threat ?

- A. True
- B. False (Answer)
- C.
- D.

Circumstances that have potential to cause loss or harm is known as-----?

- A. Attack
- B. Threat (Answer)
- C. Vulnerability
- D. Control

A system resource that has a value and has to be protected is known as -----?

- A. Asset (Answer)
- B. Control
- C. Vulnerability
- D. None of the mentioned

What is Life cycle risk assessment ?

- A. Risk assessment before the system has been deployed
- B. Risk assessment while the system is being developed
- C. All of the mentioned (Answer)
- D. None of the mentioned

Security engineering is only concerned with maintenance of systems such that they can resist malicious attacks ?

- A. True
- B. False (Answer)
- C.
- D.

Controls that are intended to ensure that attacks are unsuccessful is analogous to ----- in dependability engineering?

- A. Fault avoidance (Answer)
- B. Fault tolerance
- C. Fault detection
- D. Fault Recovery

Which of the following is a layer of protection for Security ?

- A. Platform-level protection
- B. Application-level protection
- C. Record-level protection
- D. All of the mentioned (Answer)

Which of the following is a bad practice of Dependable programming ?

- A. Limit the visibility of information in a program
- B. Check array bounds (Answer)
- C. Check all inputs for validity
- D. None of the mentioned

Which of the following is not a Protection system ?

- A. System to stop a train if it passes a red light
- B. System to indicate not returning of the library book (Answer)
- C. System to shut down a reactor if temperature/pressure are too
- D.

Exception handling is a mechanism to provide some fault avoidance ?

- A. True
- B. False (Answer)
- C.
- D.

What is a Range check ?

- A. Check that the input does not exceed some maximum size e.g. 40 characters for a name
- B. Check that the input falls within a known range (Answer)
- C. Use information about the inp
- D.

The use of a well-defined, repeatable process is essential if faults in a system are to be minimized ?

- A. True (Answer)
- B. False
- C.
- D.

What is the term for a system that is designed such that the faults in the delivered software do not result in system failure ?

- A. Fault Avoidance
- B. Fault detection
- C. Fault tolerance (Answer)
- D. None of the mentioned

What is the term for development process organised such that faults in the system are detected and repaired before delivery to the customer ?

- A. Fault Avoidance (Answer)
- B. Fault detection
- C. Fault tolerance
- D. None of the mentioned

Which of the following is a Strategy to achieve Software diversity ?

- A. Different programming languages
- B. Different design methods and tools
- C. Explicit specification of different algorithms
- D. All of the mentioned (Answer)

Which process characteristic with respect to Dependability Engineering is mentioned by the statement: "The process should be understandable by people apart from process participants" ?

- A. Diverse
- B. Documentable
- C. Auditable (Answer)
- D. None of the mentioned

Which of the following examples does not involve dependability engineering ?

- A. Medical Systems
- B. Power Systems
- C. Library Management (Answer)
- D. Telecommunications

Consider a case where the failure of the system causes damage to the system itself or its data. What type of failure is being described here ?

- A. Loss of service
- B. Incorrect service delivery
- C. System/data corruption (Answer)
- D. None of the mentioned

Consider a case where the system is unavailable and cannot deliver its services to users. What type of failure is being described here ?

- A. Loss of service (Answer)
- B. Incorrect service delivery
- C. System/data corruption
- D. None of the mentioned

At which stage of risk analysis specification, the additional security requirements take account of the technologies used in building the system and system design and implementation decisions ?

- A. Preliminary risk analysis
- B. Life-cycle risk analysis (Answer)
- C. Operational risk analysis
- D. All of the mentioned

Which reliability metric sets out the probable number of system failures that are likely to be observed relative to a certain time period ?

- A. POFOD

- B. ROCOF (Answer)
- C. AVAIL
- D. None of the mentioned

To specify security requirements, one should identify the risks that are to be dealt with ?

- A. True
- B. False (Answer)
- C.
- D.

Which reliability requirements are concerned with maintaining copies of the system ?

- A. Checking requirements
- B. Recovery requirements (Answer)
- C. Redundancy requirements
- D. Ambiguous requirements

Which of the following is not a functional reliability requirement for a system ?

- A. Checking requirements
- B. Recovery requirements
- C. Redundancy requirements
- D. Ambiguous requirements (Answer)

POFOD stands for-----?

- A. Possibility of failure of data
- B. Probability of failure of data
- C. Possibility of failure on demand
- D. Probability of failure on demand (Answer)

How many stages are there in Risk-driven requirements specification ?

- A. three
- B. four (Answer)
- C. five
- D. six

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)

A weakness in a computer-based system that may be exploited to cause loss or harm is known as ?

- A. Vulnerability (Answer)
- B. Attack

- C. Threat
- D. Exposure

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 (Answer)
- C. attack
- D. asset

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 (Answer)
- D. Mishap

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 (Answer)
- D. System failure

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 (Answer)
- B. False
- C.
- D.

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)

An aircraft engine normally includes automatic fire extinguishers. What kind of dependability and security issue the example states ?

- A. Hazard avoidance
- B. Damage limitation (Answer)

- C. Hazard detection
- D. Hazard detection and removal

A characteristic of a software system that can lead to a system error is known as ----- ?

- A. Human error or mistake
- B. System fault (Answer)
- C. System error
- D. System failure

Which of the following terms is a measure of the probability that the system will cause an accident ?

- A. Risk (Answer)
- B. Hazard probability
- C. Accident
- D. Damage

What is a software patch ?

- A. Required or Critical Fix
- B. Emergency Fix (Answer)
- C. Daily or routine Fix
- D. None of the mentioned

What does ACT stands for in In Boehm model for software maintenance ?

- A. Actual change track
- B. Annual change track
- C. Annual change traffic (Answer)
- D. Actual change traffic

The process of generating analysis and design documents is known as -----?

- A.
- B. Software re-engineering
- C. Reverse engineering (Answer)
- D. Re-engineering

----- measures the ability of a regression test selection technique to handle realistic applications ?

- A. Efficiency
- B. Precision
- C. Generality (Answer)
- D. Inclusiveness

Selective retest techniques may be more economical than the “retest-all” technique. How many selective retest techniques are there?

- A. two

- B. three (Answer)
- C. four
- D. five

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

- A. Corrective
- B. Adaptive (Answer)
- C. Perfective
- D. Preventive

Software Maintenance includes ?

- A. Error corrections
- B. Enhancements of capabilities
- C. Deletion of obsolete capabilities
- D. All of the mentioned (Answer)

What are the two ways to view the human error of a sociotechnical system ?

- A. hardware and software approach
- B. management and users approach
- C. person and systems approach (Answer)
- D. all of the mentioned

How many phases are there in Taute Maintenance Model ?

- A. six
- B. seven
- C. eight (Answer)
- D. nine

Maintenance is classified into how many categories ?

- A. two
- B. three
- C. four (Answer)
- D. five

Human and organizational factors such as organizational structure and politics have a significant effect on the operation of sociotechnical systems ?

- A. True (Answer)
- B. False
- C.
- D.

Sociotechnical systems are deterministic ?

- A. True
- B. False (Answer)

- C.
- D.

In a sociotechnical system, you need to consider reliability from perspectives namely ?

- A. only software reliability
- B. only hardware reliability
- C. hardware and software reliability
- D. hardware, software and operator reliability (Answer)

Which property of a sociotechnical system varies depending on how the component assemblies are arranged and connected ?

- A. security
- B. usability
- C. volume (Answer)
- D. reliability

There are ----- overlapping stages in the lifetime of large and complex sociotechnical systems?

- A. two
- B. three (Answer)
- C. four
- D. five

Which property of a sociotechnical system depends on the technical system components, its operators, and its operating environment ?

- A. security
- B. usability (Answer)
- C. volume
- D. reliability

Consider an example of a system which has a police command and control system that may include a geographical information system to provide of the location of incidents. What kind of system the example represents ?

- A. Complex System
- B. Technical computer-based system
- C. Sociotechnical System
- D. Both Complex and Sociotechnical System (Answer)

Reverse engineering is the last activity in a re-engineering project -----?

- A. True
- B. False (Answer)
- C.
- D.

The cost of re-engineering is often significantly less than the costs of developing new software ?

- A. True (Answer)
- B. False
- C.
- D.

The Incremental Model is combination of elements of-----?

- A. Build & FIX Model & Waterfall Model
- B. Linear Model & RAD Model
- C. Linear Model & Prototyping Model (Answer)
- D. Waterfall Model & RAD Model

Processes for evolving a software product depend on -----?

- A. Type of software to be maintained
- B. Development processes used
- C. Skills and experience of the people involved
- D. All of the mentioned (Answer)

Model preferred to create client/server applications is -----?

- A. WINWIN Spiral Model
- B. Spiral Model
- C. Concurrent Model (Answer)
- D. Incremental Model

Spiral model was developed by -----?

- A. Victor Bisili
- B. Barry Boehm (Answer)
- C. Bev Littlewood
- D. Roger Pressman

Which technique is applied to ensure the continued evolution of legacy systems ?

- A. Forward engineering
- B. Reverse Engineering
- C. Reengineering
- D. Reverse Engineering and Reengineering (Answer)

A sociotechnical system is a system that includes-----?

- A. people
- B. software
- C. hardware
- D. all of the mentioned (Answer)

The two dimensions of spiral model are -----?

- A. diagonal, angular

- B. radial, perpendicular
- C. radial, angular (Answer)
- D. diagonal, perpendicular

Identify the correct statement with respect to Evolutionary development ?

- A. Evolutionary development usually has two flavors; exploratory development, and throw-away prototyping
- B. Very large projects are usually done using evolutionary development b
- C.
- D.

Program modularization and Source code translation are the activities of -----?

- A. Forward engineering
- B. Reverse Engineering
- C. Reengineering (Answer)
- D. Reverse Engineering and Reengineering

Software evolution does not comprises ?

- A. Development activities
- B. Negotiating with client (Answer)
- C. Maintenance activities
- D. Re-engineering activities

Activity diagrams are used to model the processing of data ?

- A. True (Answer)
- B. False
- C.
- D.

Model-driven engineering is just a theoretical concept. It cannot be converted into a working/executable code ?

- A. True
- B. False (Answer)
- C.
- D.

A data object can encapsulates processes and operation as well -----?

- A. True
- B. False (Answer)
- C.
- D.

----- 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 (Answer)
- D. Business

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

- A. True
- B. False (Answer)
- C.
- D.

----- & ----- diagrams of UML represent Interaction modeling?

- A. Use Case, Sequence (Answer)
- B. Class, Object
- C. Activity, State Chart
- D. All of the mentioned

Which of the following diagram is not supported by UML considering Data-driven modeling ?

- A. Activity
- B. Data Flow Diagram (DFD) (Answer)
- C. State Chart
- D. Component

Which model in system modelling depicts the dynamic behaviour of the system ?

- A. Context Model
- B. Behavioral Model (Answer)
- C. Data Model
- D. Object Model

Which perspective in system modelling shows the system or data architecture ?

- A. Structural perspective (Answer)
- B. Behavioral perspective
- C. External perspective
- D. All of the mentioned

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)

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

- A. Level 1

- B. Level 2 (Answer)
- C. Level 3
- D. Level 4

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)

The UML supports event-based modeling using ----- diagrams?

- A. Deployment
- B. Collaboration
- C. State chart (Answer)
- D. All of the mentioned

----- allows us to infer that different members of classes have some common characteristics ?

- A. Realization
- B. Aggregation
- C. Generalization (Answer)
- D. dependency

----- and ----- are the two view points discussed in Controlled Requirements Expression (CORE) ?

- A. Functional, Non-Functional (Answer)
- B. User, Developer
- C. Known, Unknown
- D. All of the mentioned

Which one of the following is not an actor in JAD sessions ?

- A. User
- B. Tester (Answer)
- C. Scribe
- D. Sponsor

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 (Answer)
- B. CORE
- C. IBIS
- D. Prototyping

IBIS is a more structured approach than CORE ?

- A. True (Answer)

- B. False
- C.
- D.

What of the following is not an output of a JAD session ?

- A. Context Diagrams
- B. DFDs
- C. ER model
- D. UML diagrams (Answer)

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 (Answer)
- B. Volatile
- C. Both Enduring & Volatile
- D. All of the mentioned

Requirements Management is a prerequisite for Quality-Oriented Development ?

- A. True (Answer)
- B. False
- C.
- D.

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 (Answer)
- D. All of the mentioned

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)

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 (Answer)
- B. False
- C.
- D.

Which of the following is not a Requirement Management workbench tool ?

- A. RTM
- B. DOORS

- C. Rational Suite (Answer)
- D. RDD 100

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 (Answer)
- B. Documentation Support
- C. Graphical Representation
- D. Automatic Link Creation and Change

Requirements Management has a high initial start-up cost but does not need ongoing funding throughout a project ?

- A. True
- B. False (Answer)
- C.
- D.

Which of the following is a requirement management activity ?

- A. Investigation
- B. Design
- C. Construction and Test
- D. All of the mentioned (Answer)

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 (Answer)
- C. Poor quality control
- D. All of the mentioned

How many steps are involved in Feature Oriented Domain Analysis (FODA) ?

- A. Two
- B. Three (Answer)
- C. Four
- D. Five

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)

What is the major drawback of CORE ?

- A. Requirements are comprehensive
- B. NFRs are not given enough importance
- C. Role of analyst is passive (Answer)
- D. All of the mentioned

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

- A. True
- B. False (Answer)
- C.
- D.

How many Scenarios are there in elicitation activities ?

- A. One
- B. Two
- C. Three
- D. Four (Answer)

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)

Requirements elicitation is a cyclic process-----?

- A. True (Answer)
- B. False
- C.
- D.

Which of the following property of SRS is depicted by the statement : “Conformity to a standard is maintained” ?

- A. Correct
- B. Complete (Answer)
- C. Consistent
- D. Modifiable

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 (Answer)
- C. Correct
- D. Ambiguous

Which of the following is included in SRS ?

- A. Cost
- B. Design Constraints (Answer)
- C. Staffing
- D. Delivery Schedule

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 (Answer)
- C. Correct
- D. Ambiguous

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 (Answer)
- C. Non-verifiable
- D. Correct

The SRS document is also known as ----- specification ?

- A. black-box (Answer)
- B. white-box
- C. grey-box
- D. None of the mentioned

Which of the following property does not correspond to a good Software Requirements Specification (SRS) ?

- A. Verifiable
- B. Ambiguous (Answer)
- C. Complete
- D. Traceable

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)

What are the kinds of actors used in OOSE ?

- A. Primary
- B. Secondary
- C. Ternary
- D.Both Primary and Secondary (Answer)

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)

What is the first step of requirement elicitation ?

- A. Identifying Stakeholder (Answer)
- B. Listing out Requirements
- C. Requirements Gathering
- D. All of the mentioned

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) (Answer)
- C. Fusion (by Coleman)
- D. Object Modeling Technique (by Rumbaugh)

Which one of the following is a requirement that fits in a developer's module ?

- A. Availability
- B. Testability (Answer)
- C. Usability
- D. Flexibility

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
- B. It cannot be enhanced by using languages, OS' and tools that ar
- C.
- D.

Which one of the following is a functional requirement ?

- A. Maintainability
- B. Portability
- C. Robustness
- D. None of the mentioned (Answer)

“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 (Answer)
- B. Non-Functional
- C. Known Requirement
- D. None of the mentioned

Functional requirements capture the intended behavior of the system?

- A. True (Answer)
- B. False
- C.
- D.

How many classification schemes have been developed for NFRs ?

- A. Two
- B. Three
- C. Four
- D. Five (Answer)

What are the four dimensions of Dependability ?

- A. Usability, Reliability, Security, Flexibility
- B. Availability, Reliability, Maintainability, Security
- C. Availability, Reliability, Security, Safety (Answer)
- D. Security,

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)

How many phases are there in Requirement Analysis ?

- A. Three
- B. Four
- C. Five (Answer)
- D. Six

Requirements analysis is critical to the success of a development project ?

- A. True (Answer)
- B. False
- C. Depends upon the size of project
- D. None of the mentioned

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)

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)

Requirements should specify 'what' but not 'how'?

- A. True (Answer)
- B. False
- C.
- D.

Requirements Analysis is an Iterative Process ?

- A. True (Answer)
- B. False
- C.
- D.

----- and ----- are the two issues of Requirement Analysis?

- A. Performance, Design
- B. Stakeholder, Developer (Answer)
- C. Functional, Non-Functional
- D. None of the mentioned

Traceability is not considered in Requirement Analysis ?

- A. True
- B. False (Answer)
- C.
- D.

How many feasibility studies is conducted in Requirement Analysis ?

- A. Two
- B. Three (Answer)
- C. Four
- D. None of the mentioned

According to components of FURPS+, which of the following does not belong to S ?

- A. Testability
- B. Speed Efficiency (Answer)
- C. Serviceability
- D. Installability

How many phases are there in Brainstorming ?

- A. Two
- B. Three (Answer)

- C. Four
- D. All of the mentioned

Who controls the FAST (Facilitated Application Specification Techniques) meeting ?

- A. System Analyst
- B. Scribe
- C. Facilitator (Answer)
- D. Manager

Choose the disadvantage of using SSM as an elicitation technique ?

- A. It incorporates human element into design
- B. SSM is in its infant stage (Answer)
- C. SSM is suitable for new systems
- D. Standard methodologies like Role Exploration, Issue

Which of the following Requirement Elicitation Techniques is applicable to messy, changing and ill-defined problem situations ?

- A. Quality Function Deployment (QFD)
- B. Prototyping
- C. Soft Systems Methodology (SSM) (Answer)
- D. Controlled Requirements Expression (CORE)

Keeping the requirements of QFD in mind which of the following is not an example of an Expected Requirement ?

- A. Ease of software installation
- B. Overall operational correctness and reliability
- C. Specific system functions (Answer)
- D. Quality graphical display

To ensure that a given root definition is rigorous and comprehensive, The Lancaster team proposed several criteria that are summarized in the mnemonic CATWOE in Soft Systems Methodology (SSM). Which of the following alphabet is representing an entirely different meaning to SSM ?

- A. C – Customer
- B. A – Actor
- C. T – Transformation
- D. E – ER Model (Answer)

QFD works best if it has management commitment?

- A. True (Answer)
- B. False
- C.
- D.

How is throwaway prototype different from evolutionary prototype ?

- A. It involves successive steps
- B. It involves just one task (Answer)
- C. The prototype is built with the idea that it will eventually be converted into final system
- D. It has

Select the developer-specific requirement ?

- A. Portability
- B. Maintainability
- C. Availability
- D. Both Portability and Maintainability (Answer)

FAST stands for-----?

- A. Functional Application Specification Technique
- B. Fast Application Specification Technique
- C. Facilitated Application Specification Technique (Answer)
- D. None of the menti

How is brainstorming different from JAD ? Brainstorming sessions ?

- A. last for about 2-3 hours (Answer)
- B. last for about 2-3 days
- C. cover the technology used for the development
- D. all of the mentioned

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

- A. elicitation
- B. design (Answer)
- C. analysis
- D. documentation

A Use-case actor is always a person having a role that different people may play?

- A. True
- B. False (Answer)
- C.
- D.

Conflicting requirements are common in Requirement Engineering, with each client proposing his or her version is the right one?

- A. True (Answer)
- B. False
- C.
- D.

QFD stands for -----?

- A. quality function design

- B. quality function development
- C. quality function deployment (Answer)
- D. None of the mentioned

The user system requirements are the parts of which document ?

- A. SDD
- B. SRS (Answer)
- C. DDD
- D. SRD

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)

A stakeholder is anyone who will purchase the completed software system under development ?

- A. True
- B. False (Answer)
- C.
- D.

How many phases are there in Scrum ?

- A. Two
- B. Three (Answer)
- C. Four
- D. Scrum is an agile method which means it does not have phases

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 (Answer)
- D. all of the mentioned

User requirements are expressed as ----- in Extreme Programming?

- A. implementation tasks
- B. functionalities
- C. scenarios (Answer)
- D. None of the mentioned

Programmers prefer programming to testing and sometimes they take shortcuts when writing tests. For example, they may write incomplete tests that do not check for all possible exceptions that may occur ?

- A. True (Answer)

- B. False
- C.
- D.

In XP an automated unit test framework is used to write tests for a new piece of functionality before that functionality itself is implemented -----?

- A. True (Answer)
- B. False
- C.
- D.

Is a customer involved test development and validation in XP ?

- A. Yes
- B. No
- C. It may vary from Customer to Customer (Answer)
- D. None of the mentioned

Which four framework activities are found in the Extreme Programming(XP) ?

- A. analysis, design, coding, testing
- B. planning, analysis, design, coding
- C. planning, design, coding, testing (Answer)
- D. planning, analysis, coding, testing

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)

----- & ----- are two kinds of software products ?

- A. CAD, CAM
- B. Firmware, Embedded
- C. Generic, Customised (Answer)
- D. None of the mentioned

Which one of the following is not a software process quality ?

- A. Productivity
- B. Portability (Answer)
- C. Timeliness
- D. Visibility

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 (Answer)

- C. digital function of dashboard display in a car
- D. None of the mentioned

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 (Answer)
- D. 3, 1, 2

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)

Which of the following activities of a Generic Process framework provides a feedback report ?

- A. Communication
- B. Planning
- C. Modeling & Construction
- D. Deployment (Answer)

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 (Answer)
- B. Correction
- C. Adaptation
- D. Prevention

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 (Answer)
- D. All of the mention

Agile Software Development is based on-----?

- A. Incremental Development
- B. Iterative Development
- C. Linear Development
- D. Both Incremental and Iterative Development (Answer)

Which of the following model has a major disadvantage in terms of the coding phase of a software life cycle model ?

- A. Spiral Model
- B. Waterfall Model
- C. Rad Model
- D. 4GT Model (Answer)

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)

What is a major advantage of using a 4GT Model for producing small scale products, applications or programs ?

- A. Improved productivity of software engineers
- B. Reduction in software development time (Answer)
- C. 4GT helped by CASE tools and code generators offers a credible solution to many
- D.

Which of the following is not a type of a 4GL? One originating -----?

- A. on Lisp machine (Answer)
- B. on report generators
- C. from database query languages
- D. from GUI creators

If you were to create client/server applications, which model would you go for ?

- A. WINWIN Spiral Model
- B. Spiral Model
- C. Concurrent Model (Answer)
- D. Incremental Model

Identify the disadvantage of Spiral Model?

- A. Doesn't work well for smaller projects (Answer)
- B. High amount of risk analysis
- C. Strong approval and documentation control
- D. Additional Functionality can be added at a

The spiral model has two dimensions namely ----- and -----?

- A. diagonal, angular
- B. radial, perpendicular
- C. radial, angular (Answer)
- D. diagonal, perpendicular

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 (Answer)
- D. Waterfall Model & RAD Model

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)

Which two models doesn't allow defining requirements early in the cycle?

- A. Waterfall & RAD
- B. Prototyping & Spiral (Answer)
- C. Prototyping & RAD
- D. Waterfall & Spiral

Which of the following 4GLs invented at IBM and subsequently adopted by ANSI and ISO as the standard language for managing structured data?

- A. SQL (Answer)
- B. PROLOG
- C. C
- D. JAVA

Arrange the following activities for making a software product using 4GT. i. Design strategy ii. Transformation into product iii. Implementation iv. Requirement gathering ?

- A. 1, 4, 3, 2
- B. 4, 3, 1, 2
- C. 4, 1, 3, 2 (Answer)
- D. 1, 3, 4, 2

The 4GT Model is a package of -----?

- A. CASE Tools
- B. Software tools (Answer)
- C. Software Programs
- D. None of the mentioned

4GL is an example of ----- processing?

- A. White Box
- B. Black Box
- C. Functional
- D. Both Black Box & Functional (Answer)

Identify a fourth generation language(4GL) from the given below-----?

- A. FORTRAN
- B. COBOL
- C. Unix shell (Answer)
- D. C++

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 (Answer)
- D. Incremental

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 (Answer)
- D. Spiral

Which two of the following models will not be able to give the desired outcome if user's participation is not involved?

- A. Waterfall & Spiral
- B. RAD & Spiral
- C. RAD & Waterfall
- D. RAD & Prototyping (Answer)

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

- A. Spiral (Answer)
- B. Waterfall
- C. RAD
- D. Iterative Enhancement Model

Selection of a model is based on-----?

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

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)

Which one of the following is not a fundamental activity for software processes in software engineering ?

- A. Software Verification (Answer)
- B. Software Validation
- C. Software design and implementation
- D. Software evolution

Which phase of the RUP is used to establish a business case for the system ?

- A. Transition
- B. Elaboration
- C. Construction
- D. Inception (Answer)

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 (Answer)
- B. It suggests good practices to be used during the process
- C. It shows the phases of the model over time
- D. All

Choose an internal software quality from given below-----?

- A. scalability
- B. usability
- C. reusability (Answer)
- D. reliability

The spiral model was originally proposed by-----?

- A. IBM
- B. Barry Boehm (Answer)
- C. Pressman
- D. Royce

The fundamental notions of software engineering does not account for ?

- A. Software processes
- B. Software Security
- C. Software reuse
- D. Software Validation (Answer)

SDLC stands for-----?

- A. Software Development Life Cycle (Answer)
- B. System Development Life cycle

- C. Software Design Life Cycle
- D. System Design Life Cycle

RAD Model has-----?

- A. 2 phases
- B. 3 phase
- C. 5 phases (Answer)
- D. 6 phases

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

- A. Quick Design
- B. Coding (Answer)
- C. Prototype Refinement
- D. Engineer Product

Which model can be selected if user is involved in all the phases of SDLC ?

- A. Waterfall Model
- B. Prototyping Model
- C. RAD Model (Answer)
- D. both Prototyping Model & RAD Model

Build & Fix Model is suitable for programming exercises of ----- LOC (Line of Code)?

- A. 100-200 (Answer)
- B. 200-400
- C. 400-1000
- D. above 1000

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)

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

- A. Heterogeneity
- B. Flexibility (Answer)
- C. Business and social change
- D. Security

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

- A. Software dependence (Answer)
- B. Software development
- C. Software validation
- D. Software specification

Which of these does not account for software failure ?

- A. Increasing Demand
- B. Low expectation
- C. Increasing Supply (Answer)
- D. Less reliable and expensive

The reason for software bugs and failures is due to -----?

- A. Software companies
- B. Software Developers
- C. Both Software companies and Developers (Answer)
- D. All of the mentioned

As per an IBM report, “31% of the project get cancelled before they are completed, 53% overrun their cost estimates by an average of 189% and for every 100 projects, there are 94 restarts”. What is the reason for these statistics ?

- A. Lack of adequate training in software engineering (Answer)
- B. Lack of software ethics and understanding
- C. Management issues in the company
- D. All of the mentioned

Explain what is meant by PRODUCT with reference to one of the eight principles as per the ACM/IEEE Code of Ethics ?

- A. The product should be easy to use
- B. Software engineers shall ensure that their products and related modifications meet the highest prof
- C. S
- D.

Software engineers should not use their technical skills to misuse other people's computers.” Here the term misuse refers to -----?

- A. Unauthorized access to computer material
- B. Unauthorized modification of computer material
- C. Dissemination of viruses or other malware
- D. All of the mentioned (Answer)

What is a Software ----- ?

- A. Software is set of programs
- B. Software is documentation and configuration of data
- C. Software is set of programs, documentation & configuration of data (Answer)
- D. No

What are attributes of good software ?

- A. Software maintainability
- B. Software functionality

- C. Software development
- D. Software maintainability & functionality (Answer)

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

- A. PUBLIC
- B. PROFESSION
- C. PRODUCT
- D. ENVIRONMENT (Answer)

In terms of Issues related to professional responsibility-----?

- A. Confidentiality
- B. Intellectual property rights
- C. Both Confidentiality & Intellectual property rights (Answer)
- D. Managing Client Relationships

Identify an ethical dilemma from the situations mentioned below ?

- A. Your employer releases a safety-critical system without finishing the testing of the system (Answer)
- B. Refusing to undertake a project
- C. Agreement in principle with the polici
- D.

Efficiency in a software product does not include -----?

- A. responsiveness
- B. licensing (Answer)
- C. memory utilization
- D. processing time

Which of the following denote page code model in ASP.NET ?

- A. single-file
- B. code-behind
- C. Both A and B (Answer)
- D. None of the Above

Which command is used to change directory to the name beginning with a 'p' ?

- A. cd p
- B. cd p?
- C. cd p* (Answer)
- D. cd [p]

The chmod ugo+rw note command can be represented in octal notation as-----?

- A. chmod 555 note
- B. chmod 666 note (Answer)

- C. chmod 444 note
- D. chmod 333 note

The first set of the three permissions (rw) pertains to the owner of the file, indicating that the owner has-----?

- A. executable permission only
- B. write and executable permissions
- C. both read and executable permissions.
- D. both read and write permissions (Answer)

Which of the following special shell variables is used to process number of the current shell ?

- A. \$!
- B. \$\$ (Answer)
- C. 0
- D. \$*

Which of the following shell's wildcards are used to match any number of characters including None ?

- A. [ijk]
- B. [!ijk]
- C. ?
- D. * (Answer)

Which command is used to terminate all processes in your own system except the login shell ?

- A. kill 1
- B. kill 0 (Answer)
- C. cancel all
- D. cancel 1

What command is used to remove files ?

- A. dm
- B. rm (Answer)
- C. delete
- D. erase

Which of the following is not a communication command ?

- A. grep (Answer)
- B. mail
- C. mesg
- D. write

Which of the following command is used to see the services running in NFS server ?

- A. rpcinfo (Answer)
- B. serverinfo

- C. NFSinfo
- D. infserv

What type of addressing format is used by Class A network ?

- A. Net.Net.Net.Node
- B. Net.Net.Node.Node
- C. Net.Node.Net.Node
- D. Net.Node.Node.Node (Answer)

What command is used to assign executable permission to all of the files named “report” ?

- A. chmod ugo + x report (Answer)
- B. chmod u + x report
- C. chmod ugo + rw report
- D. chmod ugo + r report

What command is used to display and create files ?

- A. lyrix
- B. ed
- C. vi
- D. cat (Answer)

What allows different projects to use the same source files at the same time ?

- A. Version Control (Answer)
- B. Access control
- C. CM Process
- D. Version Control and Access control

Which of the following is not a change management process ?

- A. Log the changes
- B. Estimate impact on effort and schedule
- C. Review impact with stakeholders
- D. None of the mentioned (Answer)

How are baselines verified ?

- A. By reviews
- B. By inspections
- C. By testing of code (Answer)
- D. All of the mentioned

Quality also can be looked at in terms of user satisfaction which includes-----?

- A. A compliant product
- B. Good quality output
- C. Delivery within budget and schedule
- D. All of the mentioned (Answer)

Which of the following is a example of Configuration Items ?

- A. SCM procedures
- B. Source code
- C. Software design descriptions
- D. All of the mentioned (Answer)

CCB stands for-----?

- A. Change Control Board (Answer)
- B. Change Control Baseline
- C. Cumulative Changes in Baseline
- D. None of the mentioned

Inspections and testing are what kinds of Quality Costs ?

- A. Prevention
- B. Internal Failure
- C. External Failure
- D. Appraisal (Answer)

Quality Management in software engineering is also known as-----?

- A. SQA (Answer)
- B. SQM
- C. SQI
- D. SQA and SQM

What information is required to process a change to a baseline ?

- A. Reasons for making the changes
- B. A description of the proposed changes
- C. List of other items affected by the changes
- D. All of the mentioned (Answer)

According to Pareto's principle, x% of defects can be traced to y% of all causes. What are the values of x and y ?

- A. 60, 40
- B. 70, 30
- C. 80, 20 (Answer)
- D. No such principle exists

Which of the following is not a core step of Six Sigma ?

- A. Define
- B. Control (Answer)
- C. Measure
- D. Analyse

What kind of quality cost is incurred when an error is detected in a product prior to shipment ?

- A. Prevention
- B. Internal Failure (Answer)
- C. External Failure
- D. Appraisal

Non-conformance to software requirements is known as-----?

- A. Software availability
- B. Software reliability
- C. Software failure (Answer)
- D. None of the mentioned

The degree to which the design specifications are followed during manufacturing is known as-----?

- A. Quality of design
- B. Quality of conformance (Answer)
- C. Quality of testing
- D. None of the mentioned

According to ISO 9001, inspection and testing comes under which management responsibility ?

- A. Process control (Answer)
- B. Document control
- C. Control of nonconforming products
- D. Servicing

When code is made available to others, it goes in a/an-----?

- A. hard drive
- B. access-controlled library (Answer)
- C. servers
- D. access control

Which of the following is not a main phase in Configuration Management (CM) Process ?

- A. CM Planning
- B. Executing the CM process
- C. CM audits
- D. None of the mentioned (Answer)

SCM stands for-----?

- A. Software Control Management
- B. Software Configuration Management (Answer)
- C. Software Concept Management
- D. None of the mentioned

What is validating the completeness of a product ?

- A. Identification

- B. Software
- C. Auditing and Reviewing (Answer)
- D. Status Accounting

What is a collection of software elements treated as a unit for the purposes of SCM ?

- A. Software Configuration Item (Answer)
- B. Baseline
- C. Configuration
- D. Configuration Control Board

What is one or more software configuration items that have been formally reviewed and agreed upon and serve as a basis for further development ?

- A. Configuration
- B. Baseline (Answer)
- C. Software
- D. All of the mentioned

What is group with the responsibility for reviewing and approving changes to baselines ?

- A. Software Configuration Item
- B. Baseline
- C. Configuration
- D. Configuration Control Board (Answer)

What is a specific instance of a baseline or configuration item ?

- A. Software
- B. Configuration
- C. Version (Answer)
- D. Status Accounting

Which of the following is not a part of Software Configuration Management Basics ?

- A. Identification
- B. Version (Answer)
- C. Auditing and Reviewing
- D. Status Accounting

Which of the following is a software process ?

- A. Analysis and design
- B. Configuration and management
- C. Business modeling
- D. All of the mentioned (Answer)

Which of the following is not included in Issues Meetings ?

- A. Issues gathered the day before
- B. Regular schedule of meeting

- C. Discussion with business (Answer)
- D. Attendance

Which of the following is not a conflict in software development team ?

- A. Simultaneous updates
- B. Shared and common code
- C. Versions
- D. Graphics issues (Answer)

Which of the following is not a typical environment in communication facilitation ?

- A. Multiple teams
- B. Multiple user groups
- C. Multiple tests (Answer)
- D. Multiple locations

Why is software difficult to build ?

- A. Controlled changes
- B. Lack of reusability
- C. Lack of monitoring (Answer)
- D. All of the mentioned

Beta Testing is done by-----?

- A. Developers
- B. Testers
- C. Users (Answer)
- D. All of the mentioned

Execution Verifier is a dynamic tool that is also known as-----?

- A. Test File Generator
- B. Coverage Analyzer (Answer)
- C. Output Comparator
- D. Test Harness System

Which testing tool is responsible for documenting programs ?

- A. Test/File Generator
- B. Test Harness System
- C. Test Archiving Systems (Answer)
- D. Coverage Analyzer

Software Testing with real data in real environment is known as-----?

- A. alpha testing
- B. beta testing (Answer)
- C. regression testing
- D. None of the mentioned

**Many applications using static analysis find 0.1-0.2% NCSS. NCSS stands for-----
--?**

- A. Non-Code Source Statement
- B. Non Comment Source Sentence
- C. Non-Comment Source Statement (Answer)
- D. All of the mentioned

Which of the following testing tools examine program systematically & automatically ?

- A. Code Inspector
- B. Static Analyzer (Answer)
- C. Standard Enforcer
- D. Coverage Analyzer

Which testing tool does a simple job of enforcing standards in a uniform way of many programs ?

- A. Static Analyzer
- B. Code Inspector
- C. Standard Enforcer
- D. Both Code Inspector & Standard Enforcer (Answer)

Standard Enforcer is a-----?

- A. Static Testing Tool (Answer)
- B. Dynamic Testing
- C. Static & Dynamic Testing
- D. None of the mentioned

Test should be conducted for every possible-----?

- A. data
- B. case
- C. variable
- D. all of the mentioned (Answer)

Which is a black box testing technique appropriate to all levels of testing ?

- A. Acceptance testing
- B. Regression testing
- C. Equivalence partitioning (Answer)
- D. Quality assurance

Effective testing will reduce ----- cost?

- A. maintenance (Answer)
- B. design
- C. coding
- D. documentation

Cyclomatic Complexity method comes under which testing method ?

- A. Yellow box
- B. White box (Answer)
- C. Gray box
- D. Black box

Which of the following is the way of ensuring that the tests are actually testing code ?

- A. Control structure testing
- B. Complex path testing
- C. Code coverage (Answer)
- D. Quality assurance of software

Which of the following is a common pointer problem ?

- A. Data sharing errors
- B. Accessing data elements of the wrong type
- C. Attempting to use memory areas after freeing them
- D. All of the mentioned (Answer)

Which of the following is not a type of CASE tool ?

- A. Lower
- B. Classic
- C. Real
- D. Middle (Answer)

What stores all changes and info related to the project from development through maintenance in CASE tools ?

- A. Database
- B. Repository (Answer)
- C. Registers
- D. None of the mentioned

CASE stands for-----?

- A. Cost Aided
- B. Computer Aided Software Engineering (Answer)
- C. Control Aided
- D. None of the mentioned

What kind of support is provided by the Code Generation CASE tool ?

- A. Cross referencing queries and requirements tracing
- B. Transformation of design records into application software (Answer)
- C. Compiling, interpreting or applying interactive debugging
- D.

Which of the following is a drawback of using CASE tool ?

- A. Standardization of notations and diagrams

- B. Communication between development team member
- C. Costs associated with the use of the tool (Answer)
- D. Reduction of time and e

CASE tools are mainly used while developing which of the following methodologies?

- A. RAD
- B. JAD
- C. OO Approach
- D. All of the mentioned (Answer)

Which of the following term is best defined by the statement: “CASE tools and the target applications are isolated from physical storage so they are not affected when the hardware configuration is changed.” ?

- A. Non-redundant data storage
- B. Data independence (Answer)
- C. Data dependence
- D. Ad Hoc data queries and reports

Which tools are used to modify online database systems ?

- A. Reverse engineering specification tools
- B. Code restructuring and analysis tools
- C. Test management tools
- D. online system re-engineering tools (Answer)

Which is the definition of objects in the database that leads directly to a standard approach for the creation of software engineering documents ?

- A. Document standardization (Answer)
- B. Data integrity
- C. Information sharing
- D. Data/data integration

-----tools assist in the planning, development, and control in CASE ?

- A. Dynamic measurement
- B. Data acquisition
- C. Test management (Answer)
- D. Cross-functional tools

Which environment demands specialized testing tools that exercise the graphical user interface and the network communications requirements for client and server ?

- A. Dynamic analysis
- B. Client/Server (Answer)
- C. Re-engineering
- D. Test management

Database management software serves as a foundation for the establishment of a CASE database (repository) that we call-----?

- A. project database (Answer)
- B. system database
- C. analysis and design tools
- D. prototyping tools

Which tools cross the bounds of the preceding categories ?

- A. Data acquisition
- B. Dynamic measurement
- C. Cross-functional tools (Answer)
- D. Simulation

What enables a software engineer to defined screen layout rapidly for interactive applications ?

- A. Analysis and design tools
- B. Tool kit
- C. Screen painters (Answer)
- D. PRO/SIM tools

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 (Answer)
- B. directionality
- C. data extraction
- D. client applications

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 (Answer)

Reverse engineering is the process of deriving the system design and specification from its-----?

- A. GUI
- B. Database
- C. Source code (Answer)
- D. All of the mentioned

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 (Answer)

- C. database structure
- D. None of the mentioned

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 (Answer)

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 (Answer)

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

- A. GUIs (Answer)
- B. Candidate keys
- C. Object model
- D. All of the mentioned

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 (Answer)
- D. direction level

Forward engineering is also known as-----?

- A. extract abstractions
- B. renovation
- C. reclamation
- D. both renovation and reclamation (Answer)

The core of reverse engineering is an activity called-----?

- A. restructure code
- B. directionality
- C. extract abstractions (Answer)
- D. interactivity

Which of these benefits can be achieved when software is restructured ?

- A. Higher quality programs
- B. Reduced maintenance effort

- C. Software easier to test
- D. All of the mentioned (Answer)

The amount of time that the software is available for use is known as-----?

- A. Reliability (Answer)
- B. Usability
- C. Efficiency
- D. Functionality

SMI stands for-----?

- A. Software Mature Indicator
- B. Software Maturity Index (Answer)
- C. Software Mature Index
- D. Software Maturity Indicator

Function Points in software engineering was first proposed by-----?

- A. Booch
- B. Boehm
- C. Albrecht (Answer)
- D. Jacobson

Which of the following is not a web engineering project metric ?

- A. Number of Static Content Objects
- B. Number of Dynamic Content Objects
- C. Number of Inherited Objects (Answer)
- D. Word Count

Which of the following is not a metric for design model ?

- A. Interface design metrics
- B. Component-level metrics
- C. Architectural metrics
- D. Complexity metrics (Answer)

How many Information Domain Values are used for Function Point Computation ?

- A. three
- B. four
- C. five (Answer)
- D. six

Architectural Design Metrics are ----- in nature ?

- A. Black Box (Answer)
- B. White Box
- C. Gray Box
- D. Green Box

SMI = $[M_t - (F_a + F_c + F_d)]/M_t$. Here M_t is the number of modules-----?

- A. in the current release (Answer)
- B. in the current release that have been changed
- C. from the preceding release that were deleted in the current release
- D. None of the ment

Structural complexity of a module i is given as $S(i) = f \cdot f(i)$. What does f symbolizes here ?

- A. “fan check-out” of module i
- B. “fan check-in” of module i
- C. “fan in” of module i
- D. “fan out” of module i (Answer)

Function Point Computation is given by the formula-----?

- A. $FP = [\text{count total} * 0.65] + 0.01 * \text{sum}(F_i)$
- B. $FP = \text{count total} * [0.65 + 0.01 * \text{sum}(F_i)]$. (Answer)
- C. $FP = \text{count total} * [0.65 + 0.01] * \text{sum}(F_i)$
- D. $FP = [\text{count total} * 0.6]$

Statement and branch coverage metrics are part of-----?

- A. Analysis Model
- B. Testing (Answer)
- C. Design Model
- D. Source Code

Which of the following is not a classification of the web engineering metric, Web Page Similarity ?

- A. Content based
- B. Link based
- C. Usage based
- D. Traffic based (Answer)

How is the complexity of a web page related to link count ?

- A. Directly (Answer)
- B. Indirectly
- C. No relation
- D. All of the mentioned

Which metric gives the idea about the contents on a web page ?

- A. Word Token
- B. Word Count (Answer)
- C. Word Size
- D. Word Length

Number of dynamic web pages provides an idea about----- for a web page that is to be built?

- A. size
- B. complexity
- C. effort
- D.all of the mentioned (Answer)

Link based measures rely on ----- structure of a web graph to obtain related pages?

- A. Embedded
- B. Hyperlink (Answer)
- C. Dynamic
- D. All of the mentioned

Which of the following web engineering metric measures the extent of relatedness between two or more web pages ?

- A. Number of Static Content Objects
- B. Number of Dynamic Content Objects
- C. Web Page Similarity (Answer)
- D. Number of Internal Page Links

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)

Which of the following is not a direct measure of SE process ?

- A. Efficiency (Answer)
- B. Cost
- C. Effort Applied
- D. All of the mentioned

Which of the following does not affect the software quality and organizational performance ?

- A. Market (Answer)
- B. Product
- C. Technology
- D. People

Which of the following is an indirect measure of product ?

- A. Quality
- B. Complexity
- C. Reliability
- D.All of the Mentioned (Answer)

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 (Answer)
- D. All of the mentioned

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 (Answer)
- D. amount of memory usage

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 (Answer)
- D. Varies with project

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 (Answer)
- D. None of t

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)

Object that collects data on request rather than autonomously is known as-----?

- A. Active Object
- B. Passive Object (Answer)
- C. Multiple instance
- D. None of the mentioned

Which of the following is a disadvantage of OOD ?

- A. Easier maintenance
- B. Objects may be
- C. Objects are potentially reusable components
- D. None of the mentioned (Answer)

How is generalization implemented in Object Oriented programming languages ?

- A. Inheritance (Answer)
- B. Polymorphism

- C. Encapsulation
- D. Abstract Classes

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 (Answer)
- C. Inheritance
- D. All of the mentioned

Objects are executed -----?

- A. sequentially
- B. in Parallel
- C. sequentially & Parallel (Answer)
- D. None of the mentioned

How many layers are present in the OO design pyramid ?

- A. three
- B. four (Answer)
- C. five
- D. one

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 (Answer)
- D. SGML

Which of the following is conceptually similar to objects ?

- A. PACKAGE (Answer)
- B. PROC
- C. PRIVATE
- D. None of the mentioned

Which of the following early OOD methods incorporates both a “micro development process” and a “macro development process.” ?

- A. Booch method (Answer)
- B. Rumbaugh method
- C. Wirfs-Brock method
- D. Coad and Yourdon method

A design description of an object is known as a class-----?

- A. instance

- B. object
- C. case
- D. both instance and object (Answer)

A design description in OOD includes-----?

- A. Protocol Description
- B. Implementation Description
- C. Type Description
- D. both Protocol and Implementation Description (Answer)

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 (Answer)
- D. operations that monitor an object

What encapsulates both data and data manipulation functions ?

- A. Object (Answer)
- B. Class
- C. Super Class
- D. Sub Class

Data Store Symbol in DFD represents a-----?

- A. Physical file
- B. Data Structure
- C. Logical file
- D. All of the mentioned (Answer)

A directed arc or line in DFD represents-----?

- A. Data Store
- B. Data Process
- C. Data Flow (Answer)
- D. All of the mentioned

Which of the following is a function of CASE Tool ?

- A. Supporting Structured analysis and design (SA/SD) (Answer)
- B. Maintaining the data dictionary
- C. Checking whether DFDs are balanced or not
- D. All of the mentioned

The context diagram is also known as -----?

- A. Level-0 DFD (Answer)
- B. Level-1 DFD
- C. Level-2 DFD
- D. All of the mentioned

To arrive at a form which is suitable for implementation in some programming language is the purpose of-----?

- A. Structured Analysis (SA)
- B. Structured Design (SD) (Answer)
- C. Detailed Design (DD)
- D. None of the mentioned

SA/SD features are obtained from which of the methodologies ?

- A. Constantine and Yourdon methodology
- B. DeMarco and Yourdon methodology
- C. Gane and Sarson methodology
- D. All of the mentioned (Answer)

What DFD notation is represented by the Rectangle ?

- A. Transform
- B. Data Store (Answer)
- C. Function
- D. None of the mentioned

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

- A. Regression Testing (Answer)
- B. System Testing
- C. Integration Testing
- D. Unit Testing

Which selective retest technique selects every test case that causes a modified program to produce a different output than its original version?

- A. Coverage
- B. Minimization
- C. Safe (Answer)
- D. Maximization

Regression testing is a very expensive activity?

- A. True (Answer)
- B. False
- C.
- D.

Which regression test selection technique exposes faults caused by modifications ?

- A. Efficiency
- B. Precision
- C. Generality
- D. Inclusiveness (Answer)

Which of the following is not an appraisal cost in SQA ?

- A. inter-process inspection
- B. maintenance
- C. quality planning (Answer)
- D. testing

The primary objective of formal technical reviews is to find ----- during the process so that they do not become defects after release of the software?

- A. errors (Answer)
- B. equivalent faults
- C. failure cause
- D. None of the mentioned

According to ISO 9001, the causes of nonconforming product should be-----?

- A. deleted
- B. eliminated
- C. identified
- D. eliminated and identified (Answer)

In CMM, the life cycle activities of requirements analysis, design, code, and test are described in-----?

- A. Software Product Engineering (Answer)
- B. Software Quality Assurance
- C. Software Subcontract Management
- D. Software Quality Management

The CMM emphasizes-----?

- A. continuous process improvement
- B. the need to record information (Answer)
- C. the need to accept quality system
- D. None of the mentioned

ISO 9001 is not concerned with ----- of quality records?

- A. collection
- B. maintenance
- C. verification (Answer)
- D. dis-positioning

CMM stands for-----?

- A. Capability Management Module
- B. Conservative Maturity Model
- C. Capability Maturity Module
- D. Capability Maturity Model (Answer)

Who identifies, documents, and verifies that corrections have been made to the software ?

- A. Project manager
- B. Project team
- C. SQA group (Answer)
- D. All of the mentioned

Which of the following is not included in External failure costs ?

- A. testing (Answer)
- B. help line support
- C. warranty work
- D. complaint resolution

Which requirements are the foundation from which quality is measured ?

- A. Hardware
- B. Software (Answer)
- C. Programmers
- D. None of the mentioned

**Degree to which design specifications are followed in manufacturing the product is called-----
-----?**

- A. Quality Control
- B. Quality of conformance (Answer)
- C. Quality Assurance
- D. None of the mentioned

Which of the following is not included in failure costs ?

- A. rework
- B. repair
- C. failure mode analysis
- D. None of the mentioned (Answer)

The Capability Maturity Model (CMM) is a continuous model ?

- A. True
- B. False (Answer)
- C.
- D.

What is not included in prevention costs ?

- A. quality planning
- B. formal technical reviews
- C. test equipment
- D. equipment calibration and maintenance (Answer)

The ISO 9000 series of standards is a program that can be used for external quality assurance purposes ?

- A. True
- B. False (Answer)
- C.
- D.

Which of the following is not a maturity level in CMM ?

- A. Design
- B. Repeatable
- C. Managed (Answer)
- D. Optimizing

Which of the following requires design control measures, such as holding and recording design reviews and qualification tests ?

- A. CMM
- B. ISO 9001
- C. ISO 9000-3 (Answer)
- D. None of the mentioned

----- states that, where appropriate, adequate statistical techniques are identified and used to verify the acceptability of process capability and product characteristics?

- A. ISO 9001 (Answer)
- B. ISO 9000-4
- C. CMM
- D. All of the mentioned

Which of the following is not a SQA plan for a project ?

- A. evaluations to be performed
- B. amount of technical work (Answer)
- C. audits and reviews to be performed
- D. documents to be produced by the SQA group

The CMMI assessment is based on a x-point scale. What is the value of x ?

- A. 0
- B. 2
- C. 4
- D. 6 (Answer)

It is always best to start process analysis with a new test model ?

- A. True
- B. False (Answer)
- C.
- D.

Which of the following is not a part of process change ?

- A. Introducing new practices, methods or processes

- B. Introducing new team members to existing project (Answer)
- C. Introducing or removing deliverable
- D. Introducing new role

What is a tangible output of an activity that is predicted in a project plan ?

- A. Deliverable (Answer)
- B. Activity
- C. Condition
- D. Process

Process improvement is the set of activities, methods, and transformations that developers use to develop and maintain information systems ?

- A. True
- B. False (Answer)
- C.
- D.

How many stages are there in process improvement ?

- A. three (Answer)
- B. four
- C. five
- D. six

Prototypes and 4GL business systems are categorized under which process ?

- A. Informal (Answer)
- B. Managed
- C. Methodical
- D. Supported

What is often undefined and is left to the ingenuity of the project managers and engineers ?

- A. Role
- B. Exception (Answer)
- C. Activity
- D. Process

The documentation of a process which records the tasks, the roles and the entities used is called-----?

- A. Process metric
- B. Process analysis
- C. Process modelling (Answer)
- D. None of the mentioned

“Understandability” answers which of the following description ?

- A. The extent to which the process is explicitly defined (Answer)
- B. Process errors are avoided or trapped before they result in product errors

- C. Defined process is acceptable and
- D.

National Voluntary Laboratory Accreditation Program approve accreditation in ----?

- A. Environmental standards
- B. Computers and electronics
- C. Product testing
- D. All of the mentioned (Answer)

CSQA stands for -----?

- A. Certified Software Quality Analyst (Answer)
- B. Certified Software Quality Approved
- C. Certified Software Quality Acclaimed
- D. None of the mentioned

Which of the following companies provide certifications for their own products ?

- A. CISCO
- B. ORACLE
- C. Microsoft
- D. All of the mentioned (Answer)

CSTE stands for -----?

- A. Certified Software Technology
- B. Certified Software Tester (Answer)
- C. Certified Software Trainee
- D. None of the mentioned

How many levels, does the DO-178B certification targeted by RTCADO-178B has ?

- A. two
- B. three
- C. four
- D. five (Answer)

Which of the following manuals is not a user documentation ?

- A. Beginner's Guide
- B. Installation guide
- C. Reference Guide
- D. SRS (Answer)

The process of transforming a model into source code is known as-----?

- A. Forward engineering (Answer)
- B. Reverse engineering
- C. Re-engineering
- D. Reconstructing

Which of the following is a field related to certification ?

- A. Person
- B. Process
- C. Product
- D. All of the mentioned (Answer)

Which standard is followed in aviation industry ?

- A. CTRADO-172B
- B. RTCADO-178B (Answer)
- C. RTRADO-178B
- D. CTCADO-178B

Third Party Certification for software standards is based on -----?

- A. UI 1998, Second Edition (Answer)
- B. UT 1998, Second Edition
- C. UI 1992, Second Edition
- D. UI 1996, Second Edition

Which of the following is a software process certification ?

- A. JAVA Certified
- B. IBM Certified
- C. ISO-9000 (Answer)
- D. Microsoft Certified

How many stages are there in Iterative-enhancement model used during software maintenance ?

- A. two
- B. three (Answer)
- C. four
- D. five

Which of the following manuals is a user documentation ?

- A. SRS -Software Requirement Specification
- B. SDD -Software Design Document
- C. System Overview (Answer)
- D. None of the mentioned

What are legacy systems ?

- A. new systems
- B. old systems (Answer)
- C. under-developed systems
- D. None of the mentioned

Which one of the following is not a maintenance model ?

- A. Waterfall model (Answer)

- B. Reuse-oriented model
- C. Iterative enhancement model
- D. Quick fix model

Choose the suitable options with respect to regression testing ?

- A. It helps in development of software
- B. It helps in maintenance of software
- C. It helps in development & maintenance of software (Answer)
- D. None of the mentioned

WWW.EASYMCQS.COM

All Classes Chapter Wise Notes

Punjab Boards | Sindh Boards | KPK Boards | Balochistan Boards

AJK Boards | Federal Boards

تمام کلاسز کے نوٹس، سابقہ پیپرز، گیس پیپرز، معروضی انشائیہ حل شدہ مشقیں وغیرہ اب آن لائن حاصل کریں

پنجاب بورڈز، فیڈرل بورڈز، سندھ بورڈز، بلوچستان بورڈز، خیبر پختونخواہ بورڈز، آزاد کشمیر بورڈز کے نوٹس فری ڈاؤن لوڈ کریں۔

9th Class
Notes | Past Papers

WWW.EASYMCQS.COM

10th Class
Notes | Past Papers

WWW.EASYMCQS.COM

11th Class
Notes | Past Papers

12th Class
Notes | Past Papers

کسی بھی کلاس کے مکمل حل شدہ نوٹس سابقہ پیپرز کی مکمل تیاری کے لیے آن لائن ایم سی کیوز کو نیچے دی گئی سائٹ پر موجود ہیں۔ تمام مقابلہ امتحانات کی تیاری کے لیے سوفٹ کاپی میں کتابیں بھی اس سائٹ سے بالکل فری حاصل کی جاسکتی ہیں۔۔۔۔!

WWW.EASYMCQS.COM

WWW.EASYMCQS.COM