

Identify the life cycle model that can be suggested for a team with less experience in development of analogous projects.

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

ANSWER: A

Identify the factor that does not account for software failure

- A. Increasing Demand
- B. Low expectation
- C. Increasing Supply
- D. Less reliable and expensive

ANSWER: C

Recall the LOC count range that is appropriate for Build & Fix Model

- A. 100-200
- B. 200-400
- C. 400-1000
- D. above 1000

ANSWER: A

Incremental Model is an Inference of two different models which are

- A. Build & FIX Model & Waterfall Model
- B. Linear Model & RAD Model
- C. Linear Model & Prototyping Model
- D. Waterfall Model & RAD Model

ANSWER: C

Choose the model where user is part of all stages of SDLC

- A. Waterfall Model
- B. Prototyping Model
- C. RAD Model
- D. Both Prototyping Model & RAD Model

ANSWER: C

List out the foremost problem identified by means of applying RAD Model.

- A. Highly specialized & skilled developers/designers are required
- B. Increases reusability of components
- C. Encourages customer/client feedback
- D. Increases reusability of components, Highly specialized & skilled developers/designers are required

ANSWER: D

List out the foremost benefits identified by means of applying Incremental Model

- A. Customer can respond to each increment
- B. Easier to test and debug
- C. It is used when there is a need to get a product to the market early
- D. Easier to test and debug & It is used when there is a need to get a product to the market early

ANSWER: D

Identify the key dimensions of spiral model

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

ANSWER: C

Select the two models which does not permit requirements to be defined in early phase of life cycle

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

ANSWER: B

Select a model to develop an advanced version software product development for a software available in market

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

ANSWER: D

Ascertain the process which is not part of software process quality

- A. Productivity
- B. Portability
- C. Timeliness
- D. Visibility

ANSWER: B

Identify and arrange the 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
- D. planning, analysis, coding, testing

ANSWER: C

The business case for a software is established in which phase.....

- A. Transition
- B. Elaboration
- C. Construction
- D. Inception

ANSWER: D

Identify the impact of a process when a software is delivered

- A. both in time & with acceptable quality
- B. with acceptable quality
- C. that is cost efficient
- D. in time

ANSWER: A

Identify the following activities that generate report on feedback in a Generic Process framework.

- A. Communication
- B. Planning
- C. Modeling & Construction
- D. Deployment

ANSWER: D

In extreme programming the user requirements are represented based on

- A. implementation tasks
- B. functionalities
- C. scenarios

D. stories
ANSWER: C

.....is a driver is a feature that indicates the uncertainty of a product delivery

- A. Performance Risk
 - B. ScheduleRisk
 - C. Cost Risk
 - D. Support Risk
- ANSWER: B

RMMM is a important factor that is represented in risk table is expanded as.....

- A. Risk Mitigation, Monitoring and Management Plan
- B. Risk Monitoring , Mitigation and Management Plan
- C. Risk Management, Mitigation and Monitoring Plan
- D. Risk Migrate, Monitor and Managing Plan

ANSWER: A

The SCM provides mechanisms and data structures to accomodate change management effectively. The ☐ ☐ ☐ ☐ c
ollection of procedures and tasks that define an effective approach to change management for all constituencies invol
ved in the management, engineering and use of computer software.

- A. Component elements
- B. Process elements
- C. Human elements
- D. Construction elements

ANSWER: B

☐

A new project with estimated 2000 kloc embedded system has to be developed. Project manager has a choice of hiri
ng from two pools of developers : with very high application experience (0.82) and very little experience in program
ming language (1.14) being used or developer of very low application experience (1.29) but a lot of experience (0.95
) with the programming language. What is the impact of hiring all developers from one or the other pool. Also calcul
ate the no of staffs needed for both pools and justify accordingly. Based on the above 2 cases of which pool of progr
ammers will the Project manager has a choice of hiring after calculation EAF, Effort and Duration

- A. Case 1
- B. Case 2
- C. None of the pools
- D. Mix of both the pools

ANSWER: A

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A repository is created for a management subsystem which consists of the following elements .The information struc
ture that has been established to store all content objects is ☐ ☐ ☐

- A. Configuration management
- B. Database capabilities
- C. Content database
- D. Requirements Management

ANSWER: C

☐

A repository is created for a management subsystem which consists of the following elements . The functional eleme
nts and associated workflow that support content object identification, version control, change management, change
auditing, and reporting

- A. Database capabilities
- B. Requirements Management
- C. Content database
- D. Configuration management

ANSWER: D

☐

Evolutionary Process Model produce an increasingly more complete version of the software with each iteration. Identify the model which is not part of evolutionary

- A. RAD
- B. Spiral
- C. Prototype
- D. Concurrent Development

ANSWER: A

☐

A new project with estimated 1500 kloc embedded system has to be developed. Project manager has a choice of hiring from two pools of developers : with very high application experience (0.82) and very little experience in programming language (1.14) being used or developer of very low application experience (1.29) but a lot of experience (0.95) with the programming language. Identify the formula used to calculate the effort for the above problem

- A. $\text{Effort} = E = c_i (\text{KLOC})^{d_i} \times \text{EAF}$
- B. $\text{Effort} = E = a_i (\text{KLOC})^{c_i} \times \text{EAF}$
- C. $\text{Effort} = E = a_i (\text{KLOC})^{b_i} \times \text{EAF}$
- D. $\text{Effort} = E = a_i (\text{KLOC})^{b_i}$

ANSWER: C

☐

Extrem programming is a widely used approach in which XP Design follows the .. of Nothing More Nothing Less than the story.

- A. Keep it Clear (KIC)
- B. Keep it Detailed (KID)
- C. Keep it Easy (KIE)
- D. Keep it Simple (KIS)

ANSWER: D

☐

A new project with estimated 1500 kloc embedded system has to be developed. Project manager has a choice of hiring from two pools of developers : with very high application experience (0.82) and very little experience in programming language (1.14) being used or developer of very low application experience (1.29) but a lot of experience (0.95) with the programming language. What is the impact of hiring all developers from one or the other pool. Also calculate the no of staffs needed for both pools and justify accordingly. what is the EAF value when developers has high application experience and very little experience in programming language

- A. EAF - Effort Adjustment Factors = 1.22
- B. EAF - Effort Adjustment Factors = 0.9348
- C. EAF - Effort Adjustment Factors = 1.23
- D. EAF - Effort Adjustment Factors = 0.8348

ANSWER: B

☐

Risk Identification identifies the specific threats to a project in a systematic way. .. Is a type of risk which is identified based on clear understanding of a technology, people and environment is ..

- A. Generic Risk
- B. Technology Risk
- C. Project Risk
- D. Product Risk

ANSWER: D

☐

A process is a collection of activities, actions and tasks that are performed when some work product to be created. Process models are not perfect but provides a .. for software engineering work.

- A. Framework
- B. Umbrella
- C. Roadmap
- D. Lifecycle

ANSWER: C

☐

The best method of communicating information to and within a development team is ☐ ☐ ☐ ☐ ☐ conversation in agile development

- A. Online Portal
- B. Face to Face
- C. E-mail
- D. Project Software

ANSWER: B

☐

Extreme Programming is a widely used agile process that uses an object oriented approach. The first step begins with listening, leads to creation of ☐ User Stories☐ that describes required output, features and functionality. Identify the first step

- A. XP Planning
- B. XP Requirements
- C. XP Data Gathering
- D. XP User stories

ANSWER: A

☐

Suppose that a project was estimated to be 1500 KLOC. Calculate Effort, Staffing and Duration for each of project development in semidetached mode with values of $a=3$, $b=1.12$, $c=2.5$, $d=0.35$

- A. Effort - 10822.89, Duration – 64.55 Staffing – 167.64
- B. Effort - 10833.89, Duration – 64.55 Staffing – 169.64
- C. Effort - 10722.89, Duration – 64.55 Staffing – 147.64
- D. Effort - 9822.89, Duration – 63, Staffing – 167.64

ANSWER: A

A project has User Input = 20 (High), User Output = 59 (Avg), Enquires = 12 (Low), Files = 6 (High), EI = 4 (Avg), Effort = 47.9 PM, Processing Complexity = 4,1,0,3,3,5,4,4,3,3,2,2,4,5.

- A. PRODUCTIVITY = 10.82
- B. PRODUCTIVITY = 11
- C. PRODUCTIVITY = 12.11
- D. PRODUCTIVITY = 12.82

ANSWER: D

For the scenario given below which life cycle model would you choose? The software is to be developed for a chemical company with multiple departments. They have complex legacy system. Migrating the data from this legacy system it's not an easy task and takes a considerable time. The company very particular about process, acceptance criteria and legal contracts.

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

ANSWER: A

Suppose that a project was estimated to be 600 KLOC. Calculate effort and time for each of project development based on the requested mode. Evaluate the duration of the project in all three mode (Organic, Semi-detached, Embedded)

- A. organic – 43.761 months, semi-detached – 44.078 months, embedded – 42.930 months
- B. organic – 44.761 months, semi-detached – 45.078 months, embedded – 43.930 months
- C. organic – 45.761 months, semi-detached – 46.078 months, embedded – 44.930 months
- D. organic – 43 months, semi-detached – 44 months, embedded – 42 months

ANSWER: B

Evaluate the Effort of a project intermediate COCOMO Model. The requirements calling for 3 major modules with following size: Screen Drawing – 2 KLOC, Object Base Management - 3.5 KLOC and Algebra / Numerical Methods – 1.75 KLOC. Also the Effort Estimated Factors are 1.08, 1.30, 1.21, 1.11, 0.70, 1.14. Also the company is new with inexperienced staff the system is an ORGANIC system with values of $a=3.2$ $b = 1.05$

- A. EFFORT = 38.22 person months
- B. EFFORT = 34.54 person months
- C. EFFORT = 38.54 person months
- D. EFFORT = 36.54 person months

ANSWER: C

A project has user inputs = 35 (Avg), user outputs = 40 (low), Inquiries = 12 (High), Internal files = 6 (High), External interfaces = 4 (Avg). The general system characteristics involved and their various processing complexity factors are: 4,1,0,3,3,5,4,4,3,3,2,2,4,5. Evaluate the Function Point

- A. 500
- B. 528
- C. 551.3
- D. 529.2

ANSWER: D

For a good software design, which one is not a feature from the given list?

- A. Correctness
- B. Complex Design
- C. Understandability
- D. Efficiency

ANSWER: B

The software architects can make any changes or modifications freely in ----- phase

- A. Preliminary design
- B. Detailed design
- C. Top down
- D. Bottom up

ANSWER: A

In the design phase of the software, which of the following item is not designed?

- A. Interface between different modules
- B. Different modules of the software
- C. Data flow and control flow
- D. Navigation flow

ANSWER: D

What objectives are not the one that the software designing phase claim to offer?

(i). Identify software design activities

(ii). Identify important items developed during the software design phase

(iii). To improve the designing skills of the developers

- A. All i, ii and iii are correct
- B. Only i and ii are correct
- C. Only i and iii are correct
- D. None of the given options is correct

ANSWER: B

----- is a type of coupling in which the full data arrangement is shared between modules.

- A. Data coupling

- B. Common coupling
- C. Control coupling
- D. Stamp coupling

ANSWER: D

Which is not the predominant cover of the software Design phase?

- A. Module and Interface
- B. Basic Structure and Hierarchy
- C. Data
- D. Coding Language

ANSWER: D

The system designed according to the tasks it offers is known as ----- oriented design.

- A. Function
- B. Class
- C. Structure
- D. Object

ANSWER: D

Interface analysis means understanding i). the end-users

- ii). the tasks
- iii). the content
- iv). the environment

- A. I , II and III
- B. II, III and IV
- C. III, I and IV
- D. I, II, III and IV

ANSWER: D

----- is not a type of Architectural Model?

- A. Dynamic process model
- B. Distribution model
- C. Static structural model
- D. Non-distribution model

ANSWER: D

_____ is a proportion of the level of relationship between the modules.

- A. Coupling
- B. Cohesion
- C. Independency
- D. Portability

ANSWER: A

In Architectural style, each style describes a system category that encompasses -----

i). a set of

- connectors
- ii). a set of components
- iii). Constraints
- iv). Semantic models

- A. I and II
- B. I, II and III
- C. II, IV
- D. I, II, III and IV

ANSWER: D

The architecture in which the data live in the focal point of the structure and is accessed repeatedly by the other seg

ments is known as ----- architecture.

- A. Data-centered
- B. Data flow
- C. Layered
- D. Call and return

ANSWER: A

In Object-Oriented software engineering an element -----

- A. Attributes and operations
- B. Instances of each class
- C. Set of collaborating classes
- D. Roles for each actor

ANSWER: C

A pattern language

- A. Encompasses a collection of Patterns
- B. Is implemented using hypertext
- C. Resembles the structure of natural language
- D. Is implemented using plain text

ANSWER: A

To evaluate the WebApp quality, which characteristics is excluded?

- A. Aesthetics
- B. Reliability
- C. Maintainability
- D. Usability

ANSWER: A

To represent the user's view model of information, ----- design elements are used.

- A. Architectural
- B. Data
- C. Interface
- D. Component-level

ANSWER: B

Most user interface design patterns fall within one of ----- categories of Pattern

- A. 100
- B. 25
- C. 5
- D. 10

ANSWER: D

Identify the design feature not part of WebE design pyramid

- A. Content design
- B. Architectural design
- C. Business case design
- D. Navigation design

ANSWER: C

In ----- partitioning, the decision makers should reside at the top of the architecture and the workers reside at the bottom of the architecture.

- A. Horizontal
- B. Vertical

- C. Diagonal
 - D. Rectangle
- ANSWER: B

☐

In which practice of designing and constructing buildings will be provides to reduce the chances of product defects, it must have to reduce the amount of calls among Miscellaneous modules and classes?

- A. Software Architecture
- B. Architectural design
- C. Service-oriented architecture
- D. Re-construction

ANSWER: C

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Design standards for software design techniques and implemented on a project. Justify the following based on design standards. Which set of features is evaluated and split into smaller sets of features, which are expressed in different modules?

- A. Design Reuse
- B. Structural Models
- C. Object-oriented Design
- D. Systems Analysis

ANSWER: B

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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: D

☐

Consider the below diagram illustrates Architectural context diagram for the Safe Home security function. To determine the architectural style or combination of styles that best fit the safe home system, requirement engineering is used to uncover.

- A. Algorithmic complexity
- B. Characteristics and constraints
- C. Control and data
- D. Design pattern

ANSWER: C

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Ought which of coming up next isn't attributes to not be utilized to survey the nature of a web application?

- A. Aesthetics
- B. Reliability
- C. Maintainability
- D. Usability

ANSWER: A

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In which methodology we center on separating the issue into littler parts.

- A. Bottom-up approach
- B. Top-down approach
- C. Coupling
- D. Cohesion

ANSWER: B

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Which of the accompanying statement(s) is/are valid concerning programming design?

S1 : Coupling is a proportion of how well the things assembled in a module have a place together coherently.

S2 : Cohesion is a proportion of the level of connection between programming modules.

S3 : If coupling is low and attachment is high then it is simpler to transform one module without influencing others.

- A. Only S1 and S2
- B. Only S3
- C. All of S1, S2 and S3
- D. Only S1

ANSWER: B

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The accompanying figure speaks to get to diagrams of two modules M1 and M2. The filled circles speak to strategies and the unfilled circles speak to characteristics. In the event that strategy m is moved to module M2 keeping the characteristics where they are, what would we be able to state about the normal union and coupling between modules in the arrangement of two modules?

- A. There is no change.
- B. Average cohesion goes up but coupling is reduced.
- C. Average cohesion goes down and coupling also reduces.
- D. Average cohesion and coupling increase.

ANSWER: A

☐

Identify the correct order of process in the User Interface Design Evaluation Cycle.

- A. Preliminary design, build Prototype interface, Evaluate interface, Study by designer.
- B. Study by designer, build Prototype Interface, Preliminary design, Evaluate interface.
- C. Evaluate interface, Study by designer, Preliminary design, build Prototype Interface.
- D. Build prototype interface, Study by designer, build prototype interface, Evaluate interface.

ANSWER: A

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In the design pyramid of WebE structure, ----- is excluded?

- A. Business case design
- B. Content design
- C. Navigation design
- D. Architectural design

ANSWER: A

☐

Which of the following is not a UI configuration process?

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

ANSWER: C

☐

A person might want to access his or her bank account via an Internet connection to the bank's online website. This scenario involves several elements which are involved in the entire chain of artifacts and events. May design technique should tackle user activities, what objects on the Website function on user activities, how these objects communicate with the bank's underlying software framework, All these things will be analyzed by which design technique?

- A. ER Model
- B. System analysis
- C. Prototyping
- D. Design reuse

ANSWER: B

Consider the below example for CRC model index card for the floor plan. Which is used to manage a unit of work from starting to finishing of the application

- A. Controller classes
- B. Boundary classes
- C. Entity classes
- D. Attribute classes

ANSWER: A

Architectural Design is the overall structure of the software and the ways in which that structure provides conceptual integrity for a system. In addition, Genre implies a specific category within the overall software domain. Within each category, there are a number of subcategories. For example, within the genre of buildings, there are following general styles: houses, condos, apartment buildings, office buildings, industrial building, warehouses, and so on. Within each general style, more specific styles might apply. Each style would have a structure that can be described using a set of predictable patterns. In regards to this architectural styles, answer the following question- Which architecture allows the data store accessed frequently by other components like clients software

- A. Data flow architecture
- B. Data center architecture
- C. Call and return architecture
- D. Object oriented architecture

ANSWER: B

User interface design creates an effective communication medium between a human and a computer. In regards to below user interface design process, answer the following questions. Which phase of User interface design process creates the prototypes that evaluates the usage scenario to meet the system goal?

- A. Interface validation
- B. Interface construction
- C. Interface analysis and modelling
- D. Interface design

ANSWER: B

Module coupling provides an indication of the connectedness of a module to other modules. Which of these is correct with context to coupling?

- A. Failure to hide information leads to loose coupling and cannot be avoided
- B. Modules that communicate using special data types and structures are less tightly coupled than modules with simple values
- C. When modules communicate only through public module interface, their coupling strength is proportional to the number of messages and number of data passed in between
- D. Cohesion is bad for software while coupling is good for the software

ANSWER: C

Refactoring is a reorganization technique that simplifies the design without changing its function. Justify the following based on refactoring: Why do some feel that refactoring doesn't often result in increased performance?

- A. Refactoring is somewhat of an outdated process
- B. Refactoring changes are often small enough that they may not make a noticeable difference
- C. Because it is too simple a process to be considered effective
- D. Because test driven development is a more popular technique

ANSWER: B

How many individuals are needed for code inspector team?

- A. 9 to 11
- B. 8 to 10
- C. 5 to 8
- D. 2 to 5

ANSWER: D

In Object Oriented Programming, polymorphism stands for?

- A. Allowing overriding of functions
- B. Hiding data
- C. Keeping things in different modules
- D. Wrapping things into a single unit

ANSWER: A

_____ is the process by which objects of one class acquired the properties of objects of another classes?

- A. Hiding data
- B. Abstraction
- C. Inheritance
- D. Overriding

ANSWER: C

COTS component

- A. Independent and replaceable part of a system that fulfills a clear function
- B. Commercial Off-The-Shelf states
- C. Commercial Off-The-System state
- D. Commercial Off-The-Servers

ANSWER: A

Which of the following is not an advantages of software reuse?

- A. high effectiveness
- B. faster development process
- C. Low cost
- D. Lower risks

ANSWER: A

Pair programming has not been shown to have a helpful effect on:

- A. Peripheral awareness via overhearing
- B. Knowledge-sharing
- C. The amount of effort (man-hours) it takes to develop a feature
- D. The quality of delivered features

ANSWER: C

While the reliability of the software increases, failure intensity _____.

- A. Decreases
- B. Increases
- C. No effect
- D. Stable

ANSWER: A

What programming based on stepwise refinement process is?

- A. Procedural
- B. C programming
- C. Structural
- D. Fine

ANSWER: C

What type of testing is beneficial to check whether coding standards are followed?

- A. Computation Testing
- B. Dynamic Testing
- C. Parameter Testing
- D. Static Testing

ANSWER: D

_____ leads a walkthrough?

- A. Scribe
- B. Moderator
- C. Reviewer

D. Author

ANSWER: D

Which of the following is not an important goal of a walkthrough?

- A. Knowledge transfer
- B. Gather information
- C. Discuss alternatives
- D. Find defects

ANSWER: D

Which of the following are objectives for formal technical reviews?

- A. Allow senior staff members to correct errors
- B. Uncover errors in software work products
- C. Assess programmer productivity
- D. Determining who introduced an error into a program

ANSWER: B

Which of the following tasks is not part of Software Configuration Management?

- A. Change Control
- B. Reporting
- C. Statistical Quality Control
- D. Version Control

ANSWER: C

Which of the following is not considered as one of the four important elements that should exist when a configuration management system is developed?

- A. Component Elements
- B. Human Elements
- C. Process Elements
- D. Validation Elements

ANSWER: D

_____ diagrams are used to describe the physical components, their distributions and associations

- A. Object Diagrams
- B. Component Diagrams
- C. Instructional Diagram
- D. Deployment Diagrams

ANSWER: D

_____ diagrams represent dynamic aspects related to a system

- A. Sequence Diagrams
- B. Deployment Diagrams
- C. Interaction Diagrams
- D. Use Case Diagrams

ANSWER: C

The element which is shown with the help of a double line filled circle with a pointing arrow is classified as _____ in state chart diagrams.

- A. Final State
- B. Two degree state
- C. Initial State
- D. Zero degree State

ANSWER: A

To transform the design of the system into high-level language is

- A. Coding
- B. Design phase
- C. Unit testing
- D. Testing

ANSWER: A

Identify a peer review that is conducted even when a complete source code review is not done.

- A. Walkthroughs.
- B. Pair Programming
- C. Code review
- D. Deskchecks

ANSWER: D

☐

Name the process that improves the organization to maintain the piece of software by atleast two persons.

- A. Walkthroughs.
- B. Pair Programming
- C. Final Inspection
- D. Static Binding

ANSWER: B

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Infer the source code review methods sequence of operation.

- A. Deskchecks->Walkthroughs->Code review->Final Inspection.
- B. Walkthrough->Deskchecks->Inspection->Code review.
- C. Inspection->Code review->Deskchecks->Walkthrough
- D. Code review->inspection->Deskcheks->Walkthrough

ANSWER: A

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Forces external to an object to which that object react. Identify

- A. Objects
- B. Methods
- C. Attributes
- D. Events

ANSWER: D

☐

Choose the special method used to create new instances of a class.

- A. Constructor
- B. Inheritance
- C. Polymorphism
- D. Abstraction

ANSWER: A

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Interpret the advantages of Automatic code generation over traditional coding.

- A. High Quality
- B. Consistent
- C. Coding Abstractly
- D. All the above

ANSWER: D

☐

Select the correct integrated system of two or more application to provide extended functionality.

- A. Application Frameworks
- B. Application System Integration
- C. Architectural Patterns
- D. Aspect-oriented software development.

ANSWER: B

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Analyze the benefits of Software reuse

- A. Accelerated Development
- B. Increased dependability
- C. Both(A)&(B)
- D. only B

ANSWER: C

☐

Identify the system that encapsulates and configure the functionality of business and rules for an organization.

- A. ERP systems
- B. Program libraries
- C. Service-oriented systems
- D. Systems of systems

ANSWER: A

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A system that embeds application knowledge and generate systems from a user-supplied system model. Interpret

- A. Legacy system wrapping
- B. Configurable application systems
- C. Model-driven engineering
- D. Program generators

ANSWER: D

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Simultaneous work can be done on the model, views and controller by multiple developers .Identify

- A. Middleware integration frameworks
- B. Enterprise application frameworks
- C. Model View Controller
- D. System Infrastructure frameworks

ANSWER: C

☐

Choose an accepted version of a software configuration item . The accepted item can be changed only through the series of process.

- A. Software Configuration Management Plan
- B. Baseline
- C. Deployment-time configuration
- D. Product line architecture

ANSWER: B

☐

An application system for dentists is designed to handle appointments, dental records, patient recall, etc. It is configured as a generic application system to support the particular business type, activity or enterprise. Identify the major LIMITATION of COTS solution arising from the designed system.

- A. It is based on assumptions that are practically possible to identify the functionalities.
- B. The platform for operating systems are subjected to change by the COTS product vendor
- C. COTS product vendor can only modify the system support and its upgrading versions
- D. The evolved technologies are subjected to change by the COTS product vendor

ANSWER: C

An application system for dentists is designed to handle appointments, dental records, patient recall, etc. It is configured as a generic application system to support the particular business type, activity or enterprise. Identify the major LIMITATION of COTS solution arising from the designed system. For this scenario mention the selection of best COTS solution

- A. Configurable application systems
- B. Application components integration

- C. Non-Configurable application systems
- D. One time configurable application systems

ANSWER: A

For any application development, which of the following frameworks are NOT feasible

- A. System infrastructure frameworks
- B. Middleware integration frameworks
- C. Enterprise application frameworks
- D. Storage frameworks

ANSWER: D

The gaming application “Ludo” is one of the most sorted online games by a number of users. The developers are now in the plan to enhance the number of players to 6 from 4 as they did from 2 players to 4 initially based on its popularity. Which of the following CANNOT be suggested to reuse for enhancing the application.

- A. System reuse
- B. Application reuse
- C. Component reuse
- D. Platform reuse

ANSWER: D

The gaming application “Ludo” is one of the most sorted online games by a number of users. The developers are now in the plan to enhance the number of players to 6 from 4 as they did from 2 players to 4 initially based on its popularity. Which of the following CANNOT be suggested to reuse for enhancing the application. For the given gaming application, identify the design choices that CANNOT be made?

- A. Appropriate Functionalities of the individual application systems
- B. Method of data exchange
- C. Product features
- D. Vendor specifications

ANSWER: D

Suggest the rules that should be applied for the given ERP architecture to integrate the system database with the involved processes

- A. System rules
- B. Business rules
- C. Process rules
- D. Vendor specification rules

ANSWER: B

Match the following:

- | List I | List II |
|------------------------------------|--------------------------|
| (P) Alpha testing | (i) Black-box testing |
| (Q) Volume testing | (ii) System testing |
| (R) Equivalence class partitioning | (iii) White-box testing |
| (S) Condition coverage | (iv) Performance testing |

- A. P-ii, Q- iii, R-i, S-iv
- B. P-ii, Q- iv, R-i, S- iii
- C. P-iii, Q- iv, R-ii, S-i
- D. P-iii, Q- i, R-ii, S-iv

ANSWER: B

Which best requirement can be tested correctly by the testers

- A. The system shall be user friendly
- B. Safety critical parts contain no faults
- C. Response time shall be less than one second for the specified design load

D. System shall be built to be portable

ANSWER: C

Testing begins at _____ level and works ☐ outward ☐ toward the integration of the entire computer based system

A. Component

B. Micro

C. Unit

D. System

ANSWER: A

When do we design our test cases for a application?

A. Test Planning

B. Test Configuration

C. Test Setup

D. Test Specification

ANSWER: D

Identify which of the statement is true ?

A. Issues identified with design are difficult to fix

B. Issues identified with the requirements are difficult to fix

C. Issues identified with the Code are difficult to fix

D. Issues identified with the specifications are difficult to fix

ANSWER: B

Which testing is focuses on the design and construction of the software architecture.

A. Validation testing

B. Unit testing

C. System testing

D. Integration testing

ANSWER: D

The designing of test cases were completed during

A. Test recording

B. Test configuration

C. Test planning

D. Test specification

ANSWER: D

_____ is conducted at one or more end-user sites

A. Alpha test

B. Beta test

C. Validation test

D. Unit test

ANSWER: B

Executing a system in a manner that demands resources in abnormal quantity, frequency or volume is

A. Security testing

B. Stress testing

C. Recovery testing

D. Performance testing

ANSWER: B

Which of the following is not the attributes of a good test?

A. High probability of finding an error

B. Best of breed

- C. Redundant
 - D. Neither too simple nor too complex
- ANSWER: C

White box testing sometimes called as

- A. Basis path testing
- B. Flow graph testing
- C. Glass-box testing
- D. Behavioral resting

ANSWER: C

Which is a test case design technique that complements equivalence partitioning.

- A. Boundary value analysis
- B. Orthogonal array testing
- C. Graph based testing
- D. Model based testing

ANSWER: A

_____ serves as a blue print to conduct software testing activities

- A. Test Scope
- B. Test Plan
- C. Test Strategy
- D. Test Estimation

ANSWER: B

Under what situation Error Guessing technique is mostly used

- A. First step to derive on test cases
- B. After most of the formal techniques are applied
- C. By inexperienced testers
- D. After live implementation

ANSWER: B

Cyclomatic Complexity cannot be applied in _____

- A. Re-engineering
- B. Risk Management
- C. Test Planning
- D. Reverse engineering

ANSWER: D

A bidirectional link also called

- A. Symmetric link
- B. Asymmetric link
- C. Parallel link
- D. Directed link

ANSWER: A

A particular text field accepts only alphanumeric characters. Which of the following is invalid equivalence partition?

- A. Testing
- B. Test2ing
- C. Test
- D. Test2#ing

ANSWER: B

Which is not a test case design techniques

- A. Specification-Based techniques
- B. Structure-Based techniques
- C. Experience-Based techniques
- D. Module-Based techniques

ANSWER: D

Black box test case design also known as ☐ ☐ ☐ .design technique.

- A. Structure based
- B. Specification based
- C. Experience based
- D. System based

ANSWER: B

☐

The main focus of boundary value analysis design methodology is to ☐ ☐ .

- A. Explore the output errors
- B. Explore input errors
- C. Rectify the errors
- D. Report the errors

ANSWER: B

☐

Which metric is used to the number of defects confirmed in software/module during a specific period of operation or development against the size of the project counted in KLOC?

- A. Total Errors Count
- B. Status of Defect
- C. Count of path traversed
- D. Density of Defect

ANSWER: D

☐

Analyze the following conversation in a toll booth

Toll officer: ☐ What type of ticket do you require, single or return? ☐ IF the customer wants ☐ return ☐

Toll Officer: ☐ return within 4 hrs or more ? ☐

IF the customer replies ☐ within 4 hrs ☐

Toll officer: ☐ Amount to be paid Rs 15 ☐

ELSE

Toll Officer: ☐ Amount to be paid Rs 20 ☐

ENDIF

ELSE

Toll Officer: ☐ Amount to be paid Rs 10 ☐

ENDIF

what would be the minimum no of tests required to achieve 100% statement coverage?

- A. 1
- B. 2
- C. 3
- D. 4

ANSWER: C

☐

What are testing methodologies that may be part of an organization ☐ s testing strategies?

- A. Analysis, function based, contract based and non-reactive strategy
- B. Analysis, non-functional based, control based and non- Regression strategy
- C. Analytical, Model based, Methodical and Reactive strategy
- D. Characteristic, unsystematic, contract based and active strategy

ANSWER: C

☐

A numeric field accepts age of a candidate registering for a Government job. The age for applying is greater than 22 and less than or equal to 28 only. Based on the above statement specify which of the following covers the MOST boundary values?

- A. 18,22,28,30
- B. 12,22,25,30
- C. 22,23,25,28
- D. 18,24,28,29

ANSWER: D

☐

Certain People apply for personal loan to a Privatized bank in order start up a new business. The criteria for approving loan are as follows

- a) Less than 20 ☐ Refuse loan
- b) Age between 21 ☐ 35 ☐ Approve Personal loan with a limit of 2 lac
- c) Age older than 35 ☐ 50 ☐ Approve personal loan with limit of up to 5 lac

Considering the above scenario, Which of the following sets of values lie in the equivalence classes?

- A. Valid Test Data - 20,36,51
- B. Valid Test Data - 19,30,43
- C. Valid Test Data - 21,35,44
- D. Valid Test Data ☐ 20,35,50

ANSWER: B

☐

Given below are some of the various testing activities performed by a software team

- I. Person checks if the button shadow works properly in his system
- II. Checks performed to test the feature in multiple browsers especially the browsers suggested by the client
- III. Checks performed if the box-shadow works when integrated with the entire page or the site
- IV. Checks performed to analyse and see whether the features suggested by the client is feasible

Which of the above steps falls under verification testing?

- A. I & II
- B. I & III
- C. II & IV
- D. II & III

ANSWER: B

☐

The Testing team performs various testing and logs in certain defects, which are fixed by the Development team on an incremental basis and builds are given for further testing. What kind of testing would be performed before delivering it to the testing team?

- A. System Testing
- B. Integration Testing
- C. Smoke Testing
- D. Functional Testing

ANSWER: C

☐

The end users and stake holders are performing the testing to ensure which its working as per their requirements and needs, what type of testing strategy do they perform?

- A. Performance Testing
- B. Alpha Testing
- C. Beta Testing
- D. User Acceptance Testing

ANSWER: D

☐

The QA testing team re-executes a small subset of tests that have already been conducted and ensure that the changes are not creating negative effects by using the following testing strategy

- A. Alpha Testing
- B. Beta Testing
- C. Regression Testing

D. Smoke Testing

ANSWER: C

☐

The QA team of a Library Management System project defines the list of tests to be performed, the level of tests to be covered and their relationship with the requirements. The team also frames the test implementation strategy; testing efforts to perform the test, test policy in align with the organization, their exceptions and impact. What is the name of the document framed by the testing team, which covers the above activities?

A. Master Test Plan

B. Project Plan Document

C. Test Plan Document

D. Test Framework

ANSWER: A

☐

An "Online TimeSheet Management System" web based software was developed by Suraj and Animesh of CSE Department. Suraj developed 3 main master high level modules and Animesh developed 3 detail low level modules. The main master entry screen functionalities was handled by Suraj and detailed timesheet entry screens and report generation of all data was handled by Animesh. High and low-level modules are bundled based on the control and data processing they provide for a specific program feature. They need to test the functionalities after bundling the modules, which strategy would best suit for this kind of application

A. Top-Down Integration

B. Module Level Integration

C. Bottom-Up Integration

D. Sandwich Integration

ANSWER: D

Consider the below given function Add_element procedure, which was used to insert elements into a list

void Add_element (int list[], int elem[], int cnt)

```
{
    int i,j,key;
    for (i=0; i<=cnt; i++) elem[i] = i;
    for (i=2; i<=cnt; i++)
    {
        key = elem[i];
        j = 1;
        while (list[elem[j-1]] > list[key])
        {
            elem[j] = elem[j-1];
            j--;
        }
        elem[j] = key;
    }
    for (int l=0;l<cnt;l++)
        printf("%d\n",elem[l]);
}
```

After creating a suitable control graph for the function, find how many edges and nodes would be present in it respectively?

A. 14,11

B. 14, 12

C. 12,12

D. 13,11

ANSWER: B

Create a Calculator program in C language. The Pseudo code for the program follows the guidelines given below

1. Add individual functions for each arithmetic calculation.
 2. In case of Subtraction , a check is made to ensure that the result would be positive always
 3. In case of division, a check is made to ensure that the result is not less than 1
 4. Add a main function which would invoke the arithmetic functions after getting user inputs.
- Sketch the control flow graph and find the cyclomatic complexity of the entire program

- A. 5
- B. 6
- C. 7
- D. 8

ANSWER: C

"eLetter" is a web based application used to send the communication of wards internal marks to their respective parents. The software uses SQL as backend . A database by name - "LetterDB" is created with tables to student details like Regno, Name, Parents Name , Parent Contact no, Email and another detail table which contains the internal assessment marks obtained by the students. The student master table and assessment detail table are linked using Regno. The "LetterDB" contains sql user defined functions, stored procedures, triggers to aid in calculating the total internal marks based on individual assessment marks. The Front end application generates the Letter to Parent report and send that through parent email id. The Testing team is now assigned with the job of doing White box testing, Identify on which of the following is covered under white box testing?

- A. Checks whether the letter to parent report is generated
- B. Checks and validates the database functions, triggers and procedures
- C. checks whether the student details are printed
- D. checks the web application for behavioural or performance errors

ANSWER: B

The employees of a software company are given access to their employee portal with a valid username and password field. The portal login accepts a minimum of 8 characters and maximum of 12 characters . Which of the following combination of test cases would be a valid as per the Boundary Value Analysis test case design methodology

- A. Test Cases : Password of length 7 characters, 8 characters,9-11 characters,12 characters and more than 12 characters
- B. Test Cases : Password of length 6 characters,7 characters,8-11 characters,12 characters and more than 12 characters
- C. Test Cases : Password of length 7 characters,8 characters,9 characters,11 characters and 12 characters
- D. Test Cases : Password of length 7 characters,8 characters,9 -12 and more than 12 characters

ANSWER: A

An simple online bulletin system was developed to send out centralized communication to the students of computer science department. The application was estimated to have 20 function points and 10 functional characteristics which are based on user importance,usage-intensity,complexity , uniformity and interfacing systems. The application has 8 dynamic quality characteristics and 4 static quality characteristics. The factors influencing the environment of a software application are test tools with rating - 4 , development tests(rating - 4) and Testware determined by usable dataset (rating - 2). The factors influencing the productivity is based on skillset of human resources with a rating of 0.8 . The control factors which can be applied externally is about 10% of the primary test hours . With the help of the above data calculate the Total Test hours for online Bulletin System

- A. 13400 hours
- B. 14784 hours
- C. 19958 hours
- D. 15584 hours

ANSWER: B

_____ will provide a step-by-step guide for using the product under scenarios in a customer work place.

- A. User Training
- B. User Requirements

- C. User Maintenance
- D. User Validation

ANSWER: A

If the software has some defects, then it will take a _____ to rectify it.

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Preventive Maintenance
- D. Perfective maintenance

ANSWER: A

Losses due to problems with the software can be compared to probable cost of maintenance and

- A. Return on Investment
- B. Investment Opportunity
- C. Software Productivity
- D. Investment Returns

ANSWER: A

_____ is needed when there is a change in the business environment, and thereby users need additional/modif
ied functionality in the software product to do their tasks.

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Preventive Maintenance
- D. Perfective maintenance

ANSWER: D

_____ on the software product can make sure that the product will be useful even after environmental chan
ges occur.

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Preventive Maintenance
- D. Perfective maintenance

ANSWER: C

A _____ analysis can be done, to see if it is more profitable to conduct a Maintenance program on the soft
ware or keep using it as it is.

- A. Profit/Loss
- B. Test
- C. Maintenance
- D. Corrective

ANSWER: A

Which of these are not the functions performed by the Software Maintenance team?

- A. Locating information in system documentation
- B. Creating new documents
- C. Keeping system documentation up-to-date
- D. Finding the source of system failures or problems

ANSWER: B

_____ Model is based on economic models and often involves calculating ROI, for any planned maintenance
.

- A. Quick Fix Model
- B. Boehm's Model
- C. Osborne's Model
- D. Iterative Enhancement Model

ANSWER: B

A quality assurance plan should accompany the maintenance plan in which model?

- A. Quick Fix Model
- B. Boehm's Model
- C. Osborne's Model
- D. Iterative Enhancement Model

ANSWER: C

Which of these are incorrect characteristics of Legacy System?

- A. High maintenance cost
- B. Clear Software
- C. Obsolete support software
- D. Obsolete hardware

ANSWER: B

The Reuse-oriented Model has _____ main steps

- A. 3
- B. 4
- C. 5
- D. 1

ANSWER: B

_____ is also known as reuse engineering.

- A. Reverse Engineering
- B. Reengineering
- C. Forward Engineering
- D. Software Engineering

ANSWER: B

_____ technique is most useful when nonexistent or sketchy documentation is available for the software product

- A. Reverse Engineering
- B. Reengineering
- C. Forward Engineering
- D. Software Engineering

ANSWER: A

Perfective Maintenance accounts to _____ of all the maintenance activity

- A. 0.75
- B. 0.6
- C. 0.5
- D. 0.4

ANSWER: C

Which factor is not the reason for software maintenance?

- A. Software Defects
- B. Additional User Requirements
- C. Technology Obsolescence
- D. Better Technology

ANSWER: B

Which of these are not the functions performed by the Software Maintenance team?

- A. Locating information in system documentation
- B. Creating new documents

- C. Keeping system documentation up-to-date
- D. Finding the source of system failures or problems

ANSWER: B

Analyze which of the following is the preliminary stage of Production planning.

- A. Capacity planning
- B. Material requirements planning
- C. Scheduling
- D. Product development and design

ANSWER: D

A is the process of launching a new product or feature set into the market.

- A. Product design
- B. Product release
- C. Product maintenance
- D. Product implementation

ANSWER: B

Which of these are incorrect for the product plan?

- A. No need to revise product plan frequently
- B. Product plan guides the launch of various product development activities
- C. Product plan can be revised for every sprint
- D. Product plan can be revised based in team suggestion

ANSWER: A

☐

A program that is used in a real-world environment necessarily must change or become progressively less useful in that environment. State the law

- A. Law of increasing complexity
- B. Law of conservation of familiarity
- C. Law of continuing change
- D. Law of conservation of organizational stability

ANSWER: C

☐

The aspects of a maintenance team that lead to high maintenance costs are ☐ ☐ ☐ ☐ & ☐ ☐ ☐

- A. Quality, Staff turnover
- B. Staff turnover, Software Quality
- C. Domain expertise, Team
- D. Staff turnover, Domain expertise

ANSWER: D

☐

☐ ☐ ☐ ☐ ☐ method adapts by means of verifying that maintenance goals have been met; performance review to provide feedback to managers.

- A. Reuse
- B. Boehm's Model
- C. Osborne
- D. Iterative

ANSWER: C

☐

Analyze and find out from these loss which is not the financial reason for software maintenance.

- A. Revenue Loss
- B. Software Loss
- C. Opportunity Loss
- D. Productivity Loss

ANSWER: B

☐

☐ ☐ ☐ ☐ ☐ ..prepared by your team is up to date and in synch with the version of your software product, which you will implement at the customer site.

A. Product Manual

B. Project Manual

C. Hardware and Software Manual

D. User Manual

ANSWER: D

☐

Judge which characteristic Results due to combination of other system factors, such as complexity, poor documentation and lack of inexperienced personnel symbolize?

A. Complex software

B. High maintenance cost

C. Obsolete hardware

D. Poorly documented

ANSWER: B

☐

Identify among these which session is a descendent of the product roadmap.

A. Release Maintenance

B. Phased communication

C. Release Planning

D. Forward adjustment

ANSWER: C

☐

Identify the key Components of Software Maintenance Framework.

A. User requirements

B. Opportunity

C. Productivity

D. Revenue

ANSWER: A

☐

Identify the key Factor that does not affect Software Maintenance.

A. Relationship of Software product and Environment

B. Relationship of Software product and User

C. Relationship of Software product and Software Maintenance team

D. Relationship of Software product and product implementation

ANSWER: D

☐

The operating environment in which a software product runs in operation includes the hardware and software platform as well as the interfaces for human and other machine interactions. If any of these change over time, it becomes difficult to run the software product. In such cases, what type of Maintenance would you suggest?

A. Corrective Maintenance

B. Adaptive Maintenance

C. Preventive Maintenance

D. Perfective maintenance

ANSWER: B

☐

If the entire team of the project management has agreed on all the functionalities being implemented in the product as well as the required quality, which of the following phase will be preferred by team.

A. Decision of alpha, beta version

B. Regular release

C. Training to support staff

D. Customer support strategy

ANSWER: B



Even after thorough reviews and testing, the software product contains many defects when it goes into production. The software vendor instructs his maintenance team to create a patch to rectify them. A patch can be created to rectify those defects. Analyze the case and provide the type of maintenance needed.

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Perfective Maintenance
- D. Preventive Maintenance

ANSWER: A

Generally after a lapse of time, there are likely changes in business or operative environment, or there may be changes in hardware/software environment. Many of these changes can be perceived in advance and can be adopted. Which maintenance type is suitable for this case?

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Perfective Maintenance
- D. Preventive Maintenance

ANSWER: D

The operating environment in which a software product runs in operation includes the hardware and software platform as well as the interfaces for human and other machine interactions. If any of these change over time, then which of the following type can be preferred to make the product to be a consistent one?

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Perfective Maintenance
- D. Preventive Maintenance

ANSWER: B

A business workflow may have changed, a business transaction may have changed, or an altogether new business transaction was represented in the software product. For all these kinds of requirements, Identify the type of maintenance needed?

- A. Corrective Maintenance
- B. Adaptive Maintenance
- C. Perfective Maintenance
- D. Preventive Maintenance

ANSWER: C

You are the software project manager. Software maintenance activities reduce ROI currently. This in turn has impact in the overall project. At this situation, what maintenance model will you use?

- A. Quick fix model
- B. Boehm's model
- C. Osborne's model
- D. Iterative enhancement model

ANSWER: B

An organization has purchased ERP from its vendor. During the course of usage, some of the defects were identified like, not able to generate monthly reports, some quality attributes missing, some security issues, etc., Which maintenance model will you suggest for this case by analyzing the given scenario?

- A. Quick fix model
- B. Boehm's model
- C. Osborne's model
- D. Iterative enhancement model

ANSWER: A

