**Software Maintenance Questions**

Software Maintenance includes:

1. Error corrections
2. Enhancements of capabilities
3. Deletion of obsolete capabilities
4. All of the mentioned

ANSWER:D

\_\_\_\_\_\_ is considered to be set of planned activities whereas \_\_\_\_\_\_ concern whatever happens to a system over time.

1. Maintenance, Evolution
2. Evolution, Maintenance
3. Design, Maintenance
4. None

ANSWER:A

Monolithic systems produced by a team within an organization that solve a real world problem and have human users is referred to :

1. E-type systems
2. Evolution systems
3. Maintenance
4. CSS

ANSWER:A

Lehman has Software Evolution known as Laws of Lehman, how many laws?

1. 5
2. 6
3. 7
4. 8

ANSWER:D

The major differences between component-based software systems (CBS) and custom-built software systems:

1. Custom-built software systems have larger user community
2. Modernization of CBS is easier.
3. COTS maintenance cost is not an issue for both of them.
4. A and B

ANSWER:D

One of the following is not software maintenance life cycle (SMLC) model?

1. Staged model of maintenance and evolution.
2. Iterative models.
3. Change mini-cycle models.
4. Waterfall

ANSWER:D

One of following is a standard software maintenance standard?

1. ISO 25010.
2. ISO/IEC 14764
3. ISO 9000.
4. ISO 9001

ANSWER:B

\_\_\_\_\_\_is the discipline of managing and controlling change in the evolution of software system.

1. Software Configuration Management.
2. Software Change Management
3. Software Control Management.
4. Software lifecycle.

ANSWER:A

\_\_\_ is the examination and alteration of a subject system to reconstitute it in a new form and the subsequent implementation of the new form?

1. Reengineering.
2. Refactoring
3. Reconstruction.
4. Development.

ANSWER:A

\_\_\_\_is the activity of defining a more abstract, and easier to understand, representation of the system

1. Reverse engineering
2. Forward engineering.
3. Refactoring
4. Reconstruction.

ANSWER:A

There are a number of options available to manage legacy systems. \_\_\_ is used when the organization decides no further work on the legacy system should be performed

1. Freeze
2. Migrate.
3. Wrap
4. Reconstruction.

ANSWER:A

Impact analysis is the task of estimating the parts of the software that can be affected if a proposed change request is made. Impact analysis techniques can be partitioned into two classes.

1. Traceability analysis and Dependency (or source-code) analysis.
2. Ripple effect and Change propagation.
3. call graph based analysis and dependency graph based analysis.
4. SWOT analysis and ROI analysis

ANSWER:A

\_\_\_\_\_ analysis measures the impact, or how likely it is that a change to a particular module may cause problems in the rest of the program

1. Ripple effect.
2. Change propagation.
3. call graph based analysis.
4. Traceability

ANSWER:A

\_\_\_\_is the process of making a change to the internal structure of software to make it easier to understand and cheaper to modify without changing its observable behavior

1. Refactoring
2. Forward engineering.
3. Refactoring
4. Reconstruction.

ANSWER:A

One of the following is not one of the strategies that can be used to arrive at relevant hypotheses of program comprehension.

1. bottom up (starting from the code).
2. top down (starting from high-level goal).
3. opportunistic combinations of the bottom up and top down techniques.
4. Reading project documentation

ANSWER:D

Software reuse is using existing artifacts or software knowledge during the construction of a new software system. One of the following is not a reusable artifact.

1. data reuse.
2. architectural reuse.
3. Project plan reuse.
4. program reuse.

ANSWER:C

The four categories and the concepts that influence the maintenance process

1. product, people, maintenance types, organization process
2. product, people, organization process
3. product, people, tools, organization process
4. product, people, maintenance types.

ANSWER:A

In circa 1980, Meir M. Lehman proposed a(an) \_\_\_\_\_ classification scheme to explain the ways in which programs vary in their evolutionary characteristics.

1. SPE
2. S-type
3. P-type
4. E-type.

ANSWER:A

programs that mechanize a human or society activity, that make simplifying assumptions, and interface with the external world by requiring or providing services are referred to.

1. SPE programs
2. S-type programs
3. P-type programs
4. E-type programs

ANSWER:D

The code is said to have decayed if it is very difficult to change it, as reflected by the following three key responses:

1. the cost of the change, which is effective only on the personnel cost for the developers who implement it
2. the calendar or clock time to make the changes
3. the quality of the changed software.
4. Only (i)
5. Only (ii)
6. (i) and (ii)
7. (i) and (ii) and (iii)

ANSWER:D

Comparing the evolutions of FOSS based software and CSS based software in terms of maintenance efforts.

1. They are similar in everything
2. Lehman’s laws, 3, 4, and 5 are not fitted to large scale FOSS system.
3. Similar in team structure and process only
4. Differ with reference to global factors and release process.

ANSWER:D

Maintenance approaching approximately \_\_\_ of the product life-span?

1. Two-third
2. One-third.
3. Quarter
4. No more than 10%.

ANSWER:A

One of the following is not reuse process models for maintenance models that have been proposed by Basili:

1. Quick Fix model
2. Iterative enhancement model.
3. Full reuse model
4. Refactoring.

ANSWER:D

The Change Mini-Cycle Model has these steps:

1. Change request, analyze plan, implement change, verify and validate, documentation change
2. Change request, analyze plan, verify and validate, implement change, documentation change
3. Change request, analyze plan, verify and validate, implement change documentation change
4. documentation change, Change request, analyze plan, implement change, verify and validate

ANSWER:A

IEEE/EIA 1219 Maintenance Process has \_\_\_ phases.

1. 5
2. 6
3. 7
4. 8

ANSWER:C

The well-known analysis techniques that facilitate reverse engineering are

1. Lexical analysis.
2. Syntactic analysis.
3. Control flow analysis.
4. A and B and C

ANSWER:D

Which of the following is correct?

1. Intraprocedural control flow shows the order in which statements are executed.
2. Interprocedural control flow shows the calling relationship among program units.
3. Interprocedural control flow shows the order in which statements are executed.
4. A and B

ANSWER:D

Maintenance is classified into how many categories ?

1. two
2. three
3. four
4. five

ANSWER:C

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

1. Corrective
2. Adaptive
3. Perfective
4. Preventive

ANSWER:B

How many phases are there in Taute Maintenance Model?

1. six
2. seven
3. eight
4. nine

ANSWER:C

What type of software testing is generally used in software maintenance?

1. Regression Testing
2. System Testing
3. Integration Testing
4. Unit Testing

ANSWER: A

Which selective retest technique selects every test case that causes a modified program to produce a different output than its original version?

1. Coverage
2. Minimization
3. Safe
4. Maximization

ANSWER: C

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ measures the ability of a regression test selection technique to handle realistic applications.

1. Efficiency
2. Precision
3. Generality
4. Inclusiveness

ANSWER: C

Which regression test selection technique exposes faults caused by modifications?

1. Efficiency
2. Precision
3. Generality
4. Inclusiveness

ANSWER: D

The process of generating analysis and design documents is known as

1. Software engineering
2. Software re-engineering
3. Reverse engineering
4. Re-engineering

ANSWER: C

What is a software patch?

1. Required or Critical Fix
2. Emergency Fix
3. Daily or routine Fix
4. None of the mentioned

ANSWER: B

Which one of the following is not a maintenance model?

1. Waterfall model
2. Reuse-oriented model
3. Iterative enhancement model
4. Quick fix model

ANSWER: A

What does ACT stands for in In Boehm model for software maintenance?

1. Actual change track
2. Annual change track
3. Annual change traffic
4. Actual change traffic

ANSWER: C

Choose the suitable options with respect to regression testing.

1. It helps in development of software
2. It helps in maintenance of software
3. It helps in development & maintenance of software
4. none of the mentioned

ANSWER: C

What are legacy systems?

1. new systems
2. old systems
3. under-developed systems
4. none of the mentioned

ANSWER: B

Which of the following manuals is not a user documentation?

1. Beginner’s Guide
2. Installation guide
3. Reference Guide
4. SRS

ANSWER: D

Which of the following manuals is a user documentation?

1. SRS -Software Requirement Specification
2. SDD -Software Design Document
3. System Overview
4. None of the mentioned

ANSWER: C

The process of transforming a model into source code is known as

1. Forward engineering
2. Reverse engineering
3. Re-engineering
4. Reconstructing

ANSWER: A

How many stages are there in Iterative-enhancement model used during software maintenance?

1. Two
2. Three
3. Four
4. five

ANSWER: B

Which of the following reasons are valid ones for choosing a top-down process?

1. A top-down process is more time consuming because of the unit tests.
2. Developers can present a demo of the project to the management faster than using a bottom-up process.
3. In a top-down design, if an error is detected it's always because a lower-level module is not meeting its specifications (because the higher-level ones are already been tested).
4. A top-down process makes it possible to detect performance problems faster

ANSWER: B

One of the followings is not a reuse models classification.

1. Proactive.
2. Reactive.
3. Extractive.
4. Adaptive

ANSWER: D

The \_\_\_\_ method describes a process for domain analysis to discover, analyze, and document commonality and differences within a domain.

1. FODA.
2. DARE.
3. PuLSE.
4. RSEB

ANSWER: A

Reuse proficiency is defined as :

1. the ratio of counts the actual reuse opportunities exploited over counts the potential opportunities for reuse
2. the ratio of counts the potential opportunities for reuse counts over the actual reuse opportunities exploited
3. the ratio of counts the targeted opportunities for reuse over counts the potential opportunities for reuse
4. the ratio of counts the targeted opportunities for reuse over counts the potential opportunities for reuse

ANSWER: A

RiSE is a

1. Maturity Model.
2. Reuse Capability Model.
3. Economic Models of Software Reuse.
4. Success Factors of Reuse

ANSWER: A

Which one is not correct statement.

1. Source code is restructured to improve some of its non-functional requirements:
2. Restructuring does not modify the software’s functionalities
3. Restructuring can be performed while adding new features
4. Software refactoring is informally stated as the modifications of software to make it easier to understand

ANSWER: D

One of the following is not a high potential to code smell

1. duplicate code
2. complex data types
3. large classes
4. message chain.

ANSWER: B