1. Which type of maintenance aims to correct faults discovered during normal operation?

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

Answer: a) Corrective maintenance
Explanation: Corrective maintenance involves fixing bugs or faults discovered during normal operation to ensure the software functions properly.

2. Software Configuration Management (SCM) primarily deals with:

a) Managing project resources
b) Controlling changes to software artifacts
c) Estimating project costs
d) Testing software functionality

Answer: b) Controlling changes to software artifacts
Explanation: SCM focuses on controlling changes to software artifacts such as source code, documents, and configurations throughout the software development lifecycle.

3. What does Software Change Management primarily involve?

a) Managing software requirements
b) Managing software project schedules
c) Managing changes to software baselines
d) Managing software testing

Answer: c) Managing changes to software baselines
Explanation: Software Change Management involves managing changes to established baselines of software artifacts, ensuring consistency and traceability throughout the development process.

4. Version control systems are primarily used for:

a) Managing software configuration
b) Managing software documentation
c) Managing software testing
d) Managing project resources

Answer: a) Managing software configuration
Explanation: Version control systems (VCS) are used to manage changes to source code and other software artifacts, allowing developers to track and coordinate changes effectively.

5. What does Change control and Reporting in software development primarily involve?

a) Documenting software bugs
b) Managing software releases
c) Controlling and documenting changes to software artifacts
d) Reporting project progress

Answer: c) Controlling and documenting changes to software artifacts
Explanation: Change control involves managing and documenting changes to software artifacts, while reporting involves communicating project progress and status updates.

6. Which technique helps developers understand and analyze existing software systems?

a) Forward engineering
b) Program comprehension techniques
c) Reverse engineering
d) Software maintenance

Answer: b) Program comprehension techniques
Explanation: Program comprehension techniques help developers understand and analyze existing software systems, aiding in tasks such as maintenance, re-engineering, and enhancement.

7. Re-engineering in software development primarily involves:

a) Building software from scratch
b) Enhancing existing software without changing its core functionality
c) Understanding and improving existing software systems
d) Testing software for bugs

Answer: c) Understanding and improving existing software systems
Explanation: Re-engineering involves analyzing and improving existing software systems to enhance their maintainability, performance, or other attributes without changing their core functionality.

8. What is the primary purpose of Reverse Engineering in software development?

a) Identifying software bugs
b) Understanding existing software systems
c) Developing new software from scratch
d) Testing software performance

Answer: b) Understanding existing software systems
Explanation: Reverse engineering involves analyzing existing software systems to understand their structure, behavior, and functionality, often to aid in maintenance, re-engineering, or integration tasks.

9. Which aspect of Tool Support is essential in software development for managing changes to software artifacts?

a) Documentation
b) Version control
c) Project planning
d) Testing

Answer: b) Version control
Explanation: Version control tools are essential for managing changes to software artifacts, allowing developers to track revisions, collaborate effectively, and maintain a history of changes.

10. Feasibility analysis in project management primarily assesses:

a) The technical feasibility of the project
b) The financial feasibility of the project
c) The schedule feasibility of the project
d) The resource feasibility of the project

Answer: a) The technical feasibility of the project
Explanation: Feasibility analysis assesses the technical, financial, schedule, and resource aspects of a project, but its primary focus is on determining the technical feasibility of

implementing the project's objectives.

11. What does Project and Process Planning in project management involve?

a) Identifying project risks
b) Estimating project costs
c) Defining project objectives and activities
d) Assigning project tasks

Answer: c) Defining project objectives and activities
Explanation: Project and Process Planning involves defining project objectives, identifying activities required to achieve those objectives, and establishing processes to manage and control project activities effectively.

12. Resources allocation in project management primarily deals with:

a) Allocating financial resources
b) Allocating human resources
c) Allocating hardware resources
d) Allocating software resources

Answer: b) Allocating human resources
Explanation: Resource allocation in project management involves assigning and managing human resources such as developers, testers, and project managers to various tasks and activities based on project requirements.

13. Which term refers to the estimation of the amount of human effort required to develop a software project?

a) Cost estimation
b) Schedule estimation
c) Effort estimation
d) Resource estimation

Answer: c) Effort estimation
Explanation: Effort estimation involves estimating the amount of human effort required to complete a software project, considering factors such as project size, complexity, and team productivity.

14. Project Scheduling and Tracking primarily involve:

a) Identifying project risks
b) Monitoring project progress
c) Estimating project costs
d) Allocating project resources

Answer: b) Monitoring project progress
Explanation: Project Scheduling involves creating a timeline of project activities, while tracking involves monitoring project progress against the planned schedule, identifying deviations, and taking corrective actions as necessary.

15. Risk assessment and mitigation in project management primarily involve:

a) Identifying potential project risks and developing strategies to address them
b) Allocating additional resources to mitigate project risks
c) Estimating the financial impact of project risks
d) Reporting project risks to stakeholders

Answer: a) Identifying potential project risks and developing strategies to address them
Explanation: Risk assessment involves identifying potential project risks, analyzing their impact and likelihood, and developing strategies to mitigate or manage them effectively to minimize their impact on project objectives.

16. What is the primary goal of Software Quality Assurance (SQA)?

a) Finding and fixing software bugs
b) Ensuring adherence to coding standards
c) Improving the efficiency of software development
d) Ensuring that software meets specified quality standards

Answer: d) Ensuring that software meets specified quality standards
Explanation: The primary goal of SQA is to ensure that software products and processes conform to specified quality standards and requirements, thereby enhancing customer satisfaction and reducing defects.

17. What does a Project Plan primarily outline?

a) Project objectives and scope
b) Project resources and schedule
c) Project risks and mitigation strategies
d) Project testing strategies

Answer: a) Project objectives and scope
Explanation: A Project Plan outlines the project objectives, scope, deliverables, milestones, and overall approach to achieving project goals.

18. What do Project Metrics primarily measure?

a) Project progress and performance
b) Project risks and uncertainties
c) Project documentation quality
d) Project team satisfaction

Answer: a) Project progress and performance
Explanation: Project Metrics are used to measure various aspects of project progress and performance, such as schedule adherence, cost efficiency, and quality of deliverables.

19. Which type of maintenance aims to enhance the software by adding new features or improving existing ones?

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

Answer: d) Perfective maintenance
Explanation: Perfective maintenance involves enhancing the software by adding new features, improving existing features, or optimizing performance to meet evolving user needs or requirements.

20. Which aspect of Tool Support in software development is crucial for documenting project requirements and specifications?

a) Version control

b) Documentation
c) Project planning
d) Testing

Answer: b) Documentation
Explanation: Documentation tools in software development are essential for capturing, organizing, and maintaining project requirements, specifications, design documents, and other essential artifacts.

21. What is the primary focus of Adaptive maintenance in software maintenance?

a) Enhancing software functionality
b) Fixing software bugs
c) Adapting software to new environments or platforms
d) Optimizing software performance

Answer: c) Adapting software to new environments or platforms
Explanation: Adaptive maintenance involves modifying software to adapt it to changes in the environment, such as new hardware platforms, operating systems, or regulatory requirements.

22. Which concept in Project Management involves assessing the likelihood and impact of potential events that may affect the project?

a) Risk assessment
b) Schedule estimation
c) Resource allocation
d) Quality assurance

Answer: a) Risk assessment
Explanation: Risk assessment involves identifying, analyzing, and prioritizing potential events or uncertainties that may impact the project objectives, assessing their likelihood and impact, and developing strategies to mitigate or manage them.

23. In Software Configuration Management (SCM), what does Baseline represent?

a) A snapshot of the current state of software artifacts
b) A software testing environment
c) A project milestone
d) A software release

Answer: a) A snapshot of the current state of software artifacts
Explanation: In SCM, a Baseline represents a specific snapshot of the configuration items (such as source code, documents) at a particular point in time, serving as a reference for future changes and comparisons.

24. Which term refers to the process of estimating the total cost of a software project?

a) Schedule estimation
b) Cost estimation
c) Effort estimation
d) Resource estimation

Answer: b) Cost estimation
Explanation: Cost estimation involves estimating the total expenses associated with a software project, including development costs, hardware and software costs, maintenance costs, and other related expenses.

25. What is the primary objective of Software Effort Estimation?

a) Estimating the time required to complete a project
b) Estimating the financial resources needed for a project
c) Estimating the human effort required to complete a project
d) Estimating the number of project tasks

Answer: c) Estimating the human effort required to complete a project
Explanation: Software Effort Estimation aims to estimate the amount of human effort (such as person-hours or person-days) required to complete a software project, considering factors such as project size, complexity, and team productivity.

26. What does Project Scheduling primarily involve?

a) Allocating project resources
b) Defining project objectives
c) Creating a timeline of project activities
d) Monitoring project progress

Answer: c) Creating a timeline of project activities
Explanation: Project Scheduling involves defining project tasks, estimating their duration, sequencing them logically, and creating a timeline or schedule to guide project execution and resource allocation.

27. Which term refers to the process of identifying, assessing, and prioritizing potential risks that may impact a project?

a) Risk management

b) Risk assessment
c) Risk mitigation
d) Risk monitoring

Answer: b) Risk assessment
Explanation: Risk assessment involves systematically identifying, analyzing, and prioritizing potential risks that may affect a project's objectives, considering their likelihood and impact.

28. Which aspect of Software Quality Assurance (SQA) focuses on ensuring adherence to coding standards and best practices?

a) Quality control
b) Quality planning
c) Quality assurance
d) Quality improvement

Answer: a) Quality control
Explanation: Quality control in SQA focuses on ensuring that software artifacts adhere to predefined standards, guidelines, and best practices through activities such as code reviews, inspections, and testing.

29. What does Project Metrics primarily measure in software development?

a) Project progress and performance
b) Project risks and uncertainties
c) Project documentation quality
d) Project team satisfaction

Answer: a) Project progress and performance
Explanation: Project Metrics are quantitative measures used to assess various aspects of project progress, performance, and quality, providing insights into project health and facilitating informed decision-making.

30. Which term refers to the process of analyzing and understanding existing software systems to enhance their maintainability or performance?

a) Re-engineering
b) Reverse engineering
c) Forward engineering
d) Software maintenance

Answer: a) Re-engineering
Explanation: Re-engineering involves analyzing and understanding existing software systems to improve their maintainability, performance, or other attributes without changing their core functionality, often through activities such as restructuring, refactoring, or redesigning.

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