
Chapter 6 – Software Implementation

- 1) This method provides assurance that software engineering builds foundation as expected in target software and systems environments and enables smooth execution for verification and validation activities.
 - A. Software Configuration
 - B. Software Implementation**
 - C. Software Systems
 - D. Software Requirements

 - 2) The configuration management team focuses on identifying and managing changes and maintaining software _____ and _____.
 - A. Configuration**
 - B. Audits
 - C. Development
 - D. Documentation Visibility**

 - 3) Configuration management processes control the storage, access, changes, archive, and release of the software work products. (True)

 - 4) An example of what should not be documented on a media label. (Choose one)
 - A. Manager's personal information**
 - B. Date: Day/month/year format
 - C. Special handling: Distribution requirements
 - D. Contract number

 - 5) The configuration management software team develops operating procedures that describe implementation of processes required to satisfy the requirements and direction provided under associated and _____ plans.
 - A. Project
 - B. Documented**
 - C. Program
 - D. Software

 - 6) Automatic generation of build deployments ensures customer confidence in the releases. (True)

 - 7) Creating an approach to meet build and installation processes requires _____ between internal and external teams to become efficient.
 - A. Communication
 - B. Coordination**
 - C. Documentation
 - D. Plans

 - 8) Requests to software configuration management to provide software builds for software systems and use for computer labs and support the formal test.
 - A. Build
 - B. Build Engineer
 - C. Build Request**
 - D. Baseline
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- 9) The build engineer has defined role to perform tasks such as: (Choose only two)
- A. **Creates build folders to store documentation of software building**
 - B. Troubleshooting hardware concerns
 - C. **Maintains and controls records during program and project development**
 - D. Plan team building events
- 10) The management and use of defective configuration management software tools provide version control and change management concepts. (**False**)
- 11) Configuration Management tool used for documentation and source code, support multiple developments.
- A. **ClearCase (IBM)**
 - B. ClearQuest (IBM)
 - C. All of the above.
 - D. None of the above.
- 12) Software problem reporting, logs, tracking, and software debugging and fixes.
- A. ClearCase
 - B. **ClearQuest**
 - C. All of the above.
 - D. None of the above.
- 13) The approach to manage change in software and systems developments starting from systems design to delivery.
- A. Validation
 - B. **Unified Change Management**
 - C. Verification
 - D. Test Report
- 14) A Software design/developer main objectives are: (Choose two)
- A. Build components for established baselines ready for test
 - B. **Deliver software to build engineers**
 - C. **Make changes to files/directories**
 - D. Define models
- 15) A configuration manager's main objective is to set up configuration management environment. (**True**)
- 16) The concept of unified change management combines activities and _____.
- A. System configuration
 - B. **Artifacts**
 - C. Tools
 - D. Documentation
- 17) This management process is critical when reporting any requests from team members that are needed to change or update software and systems integration work products.
- A. Configuration Tool
 - B. **Change Request**
 - C. Requirements
 - D. System Engineering

- 18) List the first two steps in a change request process.
- A. **Initiate Change Request**
 - B. Approval
 - C. Peer Review
 - D. **Analysis**
- 19) In programs and projects, it is not critical that the organizations enhance software implementation for productivity and quality. (**False**)
- 20) When a program or project is ready for software tools that will be effective during design/development, the key is selecting the right _____ products.
- A. Work
 - B. Affordable
 - C. **Vendor**
 - D. Expensive

Chapter 7 – Software Integration

- 1) The methods for software integration provide required steps to be conducted for integration and checkout of informal software _____.
- E. Configuration Tools
 - F. Data Collection
 - G. **Engineering Builds**
 - H. Integration
- 2) The software integration activities are typically formal and not flexible for software checkout to prepare for the software and systems integration phase of the work product. (**False**)
- 3) What is the concept for testing software to uncover errors, troubleshoot, and fix problems that occur during a test is called:
- E. **Software Integration Testing**
 - F. Configuration Management Plan
 - G. Software Quality
 - H. Software Contract
- 4) Performing a review of test specifications _____ to software integration testing is a strong attribute assessment before tests are complete.
- A. During
 - B. **Prior**
 - C. After
 - D. Occasionally
- 5) The “bam theory” approach is to attempt: (Choose two)
- E. **Nonscheduled software integration**
 - F. Scheduled integration
 - G. **Testing**
 - H. Execution

- 6) The software test plans or procedures developed by program and project managers along with testing experts ensure that testing strategies are not wasted time during integration. **(True)**
- 7) Early in the software design/development phases for military and aerospace programs and projects, a _____ is normally established for software integration activities.
- A. Development Plan
 - B. Development Facility**
 - C. All of the above
 - D. None of the above
- 8) Customer-furnished equipment, software, services, documentation, data, and facilities are _____ according to contractual agreements.
- A. Examples
 - B. Required**
 - C. Unnecessary
 - D. Tested
- 9) The requirements for this particular environment must be understood when a schedule calls for software development and integration activities to be performed.
- A. Architecture
 - B. Development Facility
 - C. Engineer
 - D. Software Design/Developer**
- 10) The engineering design/development teams are primarily located in a designated hardware development geographic location. **(False)**
- 11) All software configuration identifications documented in accordance with the program or _____ software plans are effective ways to ensure configuration control.
- A. Documented
 - B. Defined
 - C. Vague
 - D. Project**
- 12) The software integration setup method involves planning with program and project managers to coordinate with the facility operations manager. **(True)**
- 13) A software integration log provides a view of the _____ operations for the design and test teams using hardware units for integration and checkout.
- I. Monthly
 - J. Day-to-Day**
 - K. Weekly
 - L. Yearly

- 14) Quality personnel are not required to support _____ and _____ performed by the software design and test teams.
- I. Integration
 - J. Checkout
 - K. All of the above**
 - L. None of the above
- 15) Early integration and checkouts focus on software components applied to tests to uncover errors. **(True)**
- 16) The importance of quality is always _____ in any software program and projects.
- I. First**
 - J. Second
 - K. Last
 - L. During
- 17) All program and project managers need to implement and use _____ instead of solving problems with no data to support and make key decisions.
- M. Metrics**
 - N. Audits
 - O. Testing
 - P. Software
- 18) The quality team roles are to perform:
- M. Meetings
 - N. Performance Evaluations
 - O. Technical Reviews**
 - P. Witnessing of implemented plans and procedures during integration and testing**
- 19) The software design and test engineers need to troubleshoot seldom before going into a formal test environment. **(False)**
- 20) Conducting and performing effective reviews and audits area key before entering into formal software and systems integration. **(True)**

Chapter 8 – Software & System Integration

- 1) Defines or references processes and procedures used to integrate defined work products, systems or subsystems into a software and systems integration environment.
- Q. Software Tools
 - R. Software/Systems Integration Plan**
 - S. Source Code
 - T. Subcontractor Plan
- 2) Detailed integration plans are used with _____ and _____ procedures to execute integration testing in the facility.
- Q. Plans**
 - R. Programs
 - S. Test**
 - T. Audit

- 3) A software qualification test occurs where work products are separated from systems and hardware configuration units associated with other assigned work products. (False)
- 4) To ensure systems integration facility operations are conducted, systems are _____, and performance is measured.
M. Integrated
N. Separated
O. All of the above
P. None of the above
- 5) The facility is configured to _____ design and test operations.
A. Connect
B. Separate
C. Support
D. Document
- 6) The test team works inside the facilities' operations with other _____ and _____ personnel.(Choose two)
A. Management
B. Customers
C. Systems
D. Software
- 7) In current states of software design/development and qualification tests, _____ and _____ become increasingly complex. (Choose two)
A. Programs
B. Requirements
C. Plans
D. Testing
- 8) The test team is responsible for formal qualifications of a specified system requirement.
(True)
- 9) What is the first step in the model for integration testing?
A. Develop Procedures
B. Develop Test
C. Acceptance Test
D. Initiate Audit
- 10) Give an example of two forms of documentation that would typically be used for the formal qualification phase.
A. Test and analysis reports
B. Integration and installation procedures
C. Software Drawings
D. Customer surveys
- 11) The documentation software required for the formal qualification phase defines and documents the progression and interdependency of test artifacts. (True)

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- 12) The verification method is used when performing an operation to discover problems and verifying visually.
- A. Verification and Validation
 - B. Problem Discovery**
 - C. Problem Reports
 - D. Quality Checklist
- 13) A quality checklist will provide: (Choose two)
- A. Software Pricing
 - B. Recorded results, including any non compliances or observations**
 - C. Measurement data produced during the audit**
 - D. Customer Feedback
- 14) The validation process is performed by the software team to ensure compliance to plans, procedures, and data inside integration facilities. (False)
- 15) Many late nights and early mornings, the software quality team is required to support software and systems integration activities. (True)
- 16) Key measurement points are called milestones.(True)
- 17) When poor software and systems integration methods are not effective, program and project schedules lead to _____ problems with customers.
- A. Limited
 - B. No
 - C. Major**
 - D. Minor
- 18) Configuration Management is broken down into three main functions. The first function is Identification. Name two other functions.
- A. Control**
 - B. Changes
 - C. Administration
 - D. Accounting**
- 19) The more quality teams adopt, the more successful they will become. (True)
- 20) The concept of assuring the customer that effective methods for software and systems integration have been compliant and do meet concrete requirement expectations.
- A. Customer dissatisfaction
 - B. Customer satisfaction**
 - C. All of the above
 - D. None of the above

Chapter 9 – Software Subcontractor

- 1) Selecting a subcontractor for contracted software design/development is the responsibility of program and _____ managers.
U. Project
V. Software
W. Quality
X. Audit
- 2) Plan for subcontractors to provide required and necessary support to customers per specified requirements in production of work products.
U. Project Plan
V. Subcontractor Plan
W. Architecture Plan
X. Software/System Integration Environment
- 3) There is a lack of competition from other subcontractors to obtain assigned work. **(False)**
- 4) The planning for subcontracted work is performed during a program and project start-up _____ decisions are made to employ outside support.
Q. After
R. Before
S. During
T. Once
- 5) This particular individual is an integral part of the team for software product development.
A. Software Subcontractor
B. Quality Manager
C. Project Leader
D. None of the above
- 6) The subcontractor plan will typically describe:
A. Risk Management
B. Configuration Management
C. The subcontractor's personal work schedule
D. Budget description
- 7) A statement of work (SOW) will list subcontractor requirements. **(True)**
- 8) A list of requirements, expectations, and interfaces between the program and project are documented in a _____.
A. Project Plan
B. Subcontractor Plan
C. Audit Plan
D. Statement of Work
- 9) The software audit is comprised of peer reviews to be conducted at subcontractors' site of business by defined dates as documented in the statement of work (SOW). **(False)**

- 10) The subcontractor plans that are audited must ensure the software test environment performs its intended function and meet contract requirements. **(True)**
- 11) Subcontractor process audit criteria are prepared and provided to the subcontractor _____ the audits are performed.
- A. After
 - B. Before**
 - C. During
 - D. None of the above
- 12) Software could be delivered in two ways. (Choose 2)
- A. Media
 - B. Electronically
 - C. All of the above**
 - D. None of the above
- 13) All subcontractor deliveries to a customer require receiving but inspection of the software work product is not necessary. **(False)**
- 14) What is the first item addressed on a Software Subscriber's Plan?
- A. Risk Management
 - B. The task for each subcontractor**
 - C. Configuration Management
 - D. Schedules for delivery of work products
- 15) In an audit checklist, readiness review covers the following items:
- A. Managements' work schedule
 - B. Software Budget
 - C. Plans/procedures released**
 - D. Software configured for test**
- 16) The software subscriber's plan identifies an approach to manage the required subcontractor's efforts. **(True)**
- 17) The criteria that a system or component must satisfy to be accepted by a user, customer, or other authorized entity.
- A. Audit**
 - B. Acceptance Criteria
 - C. Validation
 - D. Verification
- 18) In a software subscriber's audit checklist, there is a section listed that development and testing is required. **(True)**
- 19) Test failures are not recorded during test conduct, according to the subscriber's audit checklist. **(False)**

- 20) The inspection performed to ensure software engineering requirements and processes have been applied to acceptance testing and delivery to customers.
- A. Formal Testing
 - B. Functional Configuration Audit
 - C. First-Article Inspection**
 - D. Critical Design Review

Chapter 10 – Software & System Delivery

- 1) Software work products are identified in program and _____ development plans.
- A. Product
 - B. Software
 - C. Project**
 - D. Process
- 2) Before delivery of software and systems to customers, the following are important. (Choose two)
- A. Management Approval
 - B. Software documentation is releases and ready for delivery**
 - C. Software maintenance
 - D. Software and media and data verification and validation are complete**
- 3) There are times where schedules become the priority before quality, and the lack of confidence in the customer will have an impact on future work agreements and contracts.
(True)
- 4) A management approach that describes the work to be done, resources required, methods to be used, reviews, audits, the configuration management, quality assurance procedures to be implemented.
- A. Project Plan**
 - B. Program Plan
 - C. Software Design/Development Process
 - D. Software Contract
- 5) Technical data or information that describing or specifying the design or details, explaining the capabilities, and providing instructions for using software.
- A. Software Engineering
 - B. Software Documentation**
 - C. Software Design
 - D. Software Life Cycle
- 6) A version control document (VCD), is used to release, _____, and _____ the software versions at the software and system levels.
- A. Track**
 - B. Describe
 - C. Control**
 - D. Monitor

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- 7) Standard true/false question here. (False)
- 8) Identifies and describes a software version consisting of one or more computer software work products; used to release, track, and control software versions.
- A. Verification
 - B. Version Object Base
 - C. **Version Control Document**
 - D. Validation
- 9) The build and installation procedure describes in detail how to build and _____ software for systems integration.
- A. Integrate
 - B. **Install**
 - C. Uninstall
 - D. Troubleshoot
- 10) The Configuration Management organization inside a program and project is responsible for which tasks. (Choose two)
- A. **Development Control**
 - B. **Release of build and installation procedures**
 - C. Development Plan
 - D. Development Folder
- 11) There should always be documentation to provide version control that will identify and describe software versions of non existing worker products. (False)
- 12) This particular method is used to meet contract delivery requirements or obligations he program has agreed to accomplish.
- A. **Software Deliveries**
 - B. Software Engineering
 - C. Software Documentation
 - D. Software Contract
- 13) To survive the global market, programs and projects must continuously _____ their work products, services, and delivery systems.
- A. Offer
 - B. **Improve**
 - C. Support
 - D. Downgrade
- 14) A First Article Inspection (FAI) checklist includes which specific items (Choose 2)
- A. Verification Requirements
 - B. Verification Process
 - C. **All of the above**
 - D. None of the above
- 15) In all phases, the delivery system provides processes and procedures to get things done right. (True)
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- 16) This particular process verifies that the work product performance complies with the hardware, software, and interface requirements specifications.
- A. Physical Configuration Audit
 - B. Functional Configuration Audit**
 - C. Audit
 - D. Corrective Audit
- 17) An orderly progression of testing which elements of software and hardware combine and tested.
- A. Integration testing**
 - B. Interface requirement
 - C. Qualification Testing
 - D. Testing
- 18) In a Physical Configuration Audit, a “kick-off-meeting” is conducted to define that _____ and _____ are defined to be used as a guideline to support the formal audit.
- A. Software
 - B. Roles**
 - C. Hardware
 - D. Responsibilities**
- 19) Verification that the work product performs to required configurations is included in conducting a Functional Configuration Audit. **(True)**
- 20) A specification or product that has been formally reviewed and agreed on and can only be changed through formal control processes is defined as:.
- A. Audit
 - B. Change Control
 - C. Baseline**
 - D. Configuration Management

Chapter 11 – Product Evaluation

- 1) The quality organization or team performs product evaluations to ensure _____.
(Short Answer)
- Software Design/Development**
- 2) The software quality plan (SQP) _____ and _____ the software quality assurance to ensure that programs and projects are following procedures and processes defined in the software quality plan.
- A. Describes**
 - B. Improve
 - C. Minimize
 - D. Documents**
- 3) The quality team does ensure compliance to software design/development standards and control of work products and changes. **(True)**

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- 4) A planned and systematic approach to provide adequate confidence that the product conforms to established requirements.
- A. **Quality Assurance**
 - B. Quality Management System
 - C. Quality Metrics
 - D. Qualification Testing
- 5) The program and project managers are required to provide a _____ and describe to describe the benefits, goals, and objectives for developing a work product or system for delivery.
- A. Contract
 - B. **Vision Statement**
 - C. Test Report
 - D. Work Product
- 6) The focus of successful program and project managers is the team, _____, and _____.
- A. **Processes**
 - B. **Work Product**
 - C. Quality Testing
 - D. Validation
- 7) Senior managers lead lower-level program and project managers. **(False)**
- 8) Processes that are understood provide the _____ to implement effective plans and procedures for software design/development activities.
- A. **Framework**
 - B. Data Management
 - C. Drawing
 - D. Firmware
- 9) A corrective action is required to eliminate or mitigate the cause of a defected nonconformity or other undesirable situations to prevent recurrences during _____.
- A. Quality Testing
 - B. **Product Evaluation**
 - C. Software Integration
 - D. Design Phase
- 10) Artifact information associated with quality product evaluations includes software configuration records, _____ and _____ with activities.
- A. Data
 - B. **Testing Records**
 - C. Drawing
 - D. **Other Artifacts**
- 11) Quality reports only provide detail on compliance and opportunities for improvements. **(False)**

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- 12) This step is taken to address a direct cause and prevent recurrence of a specific nonconformity.
- A. Collective analysis
 - B. Formal Testing
 - C. Immediate Action**
 - D. Inspection
- 13) Communication, Understanding, Discipline, and Deployment are examples of _____.
- A. Quality Plan
 - B. Process Improvements**
 - C. Configuration Management
 - D. Test Plan
- 14) The most common errors in measuring data are the following. (Choose two).
- A. Teams are involved in quality improvement decisions
 - B. Not understanding the measurement goals**
 - C. Teams are not involved in quality improvement decisions**
 - D. Good data collection and analysis
- 15) Quality gates come into play to ensure process and work products are compliant. **(True)**
- 16) Measurement of the degrees to which software possesses given attributes that affect quality.
- A. Quality
 - B. Quality Metrics**
 - C. Quality Management System
 - D. Quality Assurance
- 17) Software industries and software programs that establish, document, implement, and maintain effective quality management and continually improve its effectiveness.
- A. Quality Testing
 - B. Quality Management System**
 - C. Quality Metrics
 - D. Project Plan
- 18) What stress management techniques should be utilized when team members are having rough days and struggling with processes or other team members? (Choose 2)
- A. Picture yourself near the ocean**
 - B. Give up
 - C. There are soothing sounds, and the air is filled with serenity**
 - D. Cry or Whine
- 19) Proven solutions to problems should not be addressed early and fixed quickly. **(False)**
- 20) Not having effective staffing of personnel is not a problem linked to poor-quality data. **(False)**
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