Chapter1

1) The primary purpose for the implementation of Effective Methods for Software and System Integration does increase _____________, _____________, ____________ into the software cycle.
   A. Communication, Planning, Design
   B. Communication, Design, Visibility
   C. Communication, Knowledge, Visibility
   D. Communication, Knowledge, Design

2) The definition of Software & Design/Development is a systematic approach for the creation of software design and its development to reflect __________ and __________ definitions application to the work product.
   A. Planning
   B. Design
   C. Hardware
   D. Software

3) The System Design Method is increasingly important as it provides the disciplines required and implemented during software design/development life cycles. False

4) The entire software life cycle includes planning, systems, requirements, design, builds, installations, integration, subcontractors, quality, and delivery. True

5) Effective methods for Software and System Integrations include the following discipline methods:
   E. Methods, Software, Systems, Integration
   A. Methods, Software, Installation, Integration
   B. Methods, Software, Analysis & Design, Integration
   C. Methods, Software, Quality, Integration

6) Integration is the compass to combine software, systems, firmware, and hardware to work together as one. False

7) To develop, operate, and maintain software and systems integration capabilities inside work product facilities, there must be a major discipline in supporting the entire software life cycle. True

8) The purpose of program and __ project ___ planning is to provide the necessary process steps to scope out planning for systems and software design/ development within integration efforts.

9) The planning and engineering task explains the disciplines and methods pertaining to design, planning, risk management, and deployment. False
10) Defined and documented software requirements provide a systematic approach to development from multiple resources. True
11) Name one method for system design.
   A. Analyze customer requirements
   B. Integration
   C. Quality
   D. Testing

12) Name two methods that are applied to initial development of software requirements.
   A. Communication
   B. The results of functional software interfaces
   C. Integration
   D. Documentation

13) The final step in an effective methods flow is product evaluation. True

14) In relation to software design/development, the documented program and project plan provide _____, according to software-defined processes and procedures.
    A. Performance
    B. Traceability
    C. Details
    D. Documentation

15) The software implementation method for testing provides assurance that engineering builds function to enable smooth execution for verification and test activities. True

16) What is one requirement for informal and formal integration testing in a development, integration facilities, or the software systems integration facility?
    A. The importance of software requirements
    B. The importance of quality
    C. The importance of customer participation
    D. The importance of software implementation

17) What is the next step that takes place after Software Design?
    A. Software Implementation
    B. Software Requirements
    C. Product Evaluation
    D. Software Design

18) Name the next step after Software Implementation.
    A. Software Requirements
    B. Software Integration
    C. Software Design
    D. Product Evaluation

19) The number one effective method during the software life cycle for a program is:
    A. Program and Planning
    B. Software Design
    C. Quality First
    D. Software Integration

20) What is the first step in effective methods flow?
    E. Product Evaluation
    F. Program and Project Planning
    G. Software Subcontractors
    H. System Design

Chapter2

1) The initiation of planning starts at the ____ Proposal _____ phase with the customer.

2) Program objectives identify __ Goals ___ for the program with consideration of how it would be accomplished.

3) Program objectives should be defined and technical and management disciplines, identified prior to the initiation of a plan. True

4) Effective programs that perform to defined objectives and within the scope are successful due to which two factors below:
   A. Tasks or functions
   B. How the work product performs
   C. Customer satisfaction
   D. Management support
5) When program objectives and the scope are considered, program managers can select the best approach to eliminate _____________:
   A. Roadblocks
   B. Customer satisfaction
   C. Integration
   D. Management support

6) To avoid project failures, it is imperative that project managers and a team of systems and software engineers do the following:
   A. Develop an approach for project planning
   B. Ensure configuration control is in place
   C. Oversee activities
   D. All of the above

7) Often times software projects encounter obstacles due to uncertainty and confusion. Name at least one way to eliminate uncertainty or confusion within the team:
   A. Structure daily meetings
   B. Share ideas
   C. Inform project managers of problems occurring
   D. Listen and try to resolve complaints

8) Projects can have a "daily stand" meeting to address concerns or discuss issues? True

9) Communication planning principals define goals and objectives after the course of program and project planning. False

10) There are many planning ideas and decisions by managers that are not accepted by team members. Name one way a project manager could create chaos on a project.
   A. Provide a scope for the team to know what is ahead
   B. Involve systems and software teams to help with delivery schedules
   C. Planning to adjust and accommodate change
   D. Failure to identify risks that could have an impact on program and project planning

11) _______ and focus helps teams be more effective during software design/development activities.
   A. Rewards
   B. Ideas
   C. Effective Planning
   D. Concentration

12) When a software manager's team or organization delivers software to a customer in a timely fashion is defined as:
   A. Communication
   B. Delay
   C. Implementation
   D. Execution

13) Studies showed that when schedule, cost, and quality are not a top priority, a project is not successful. True

14) At the senior management level, managers assign responsibility, authority, and _______ to program and project managers or team leaders to define the software design/development to provide required support.
    A. Incentives
    B. Software
    C. Accountability
    D. Execution

15) Program and project schedules that are not understood from the start will not have a strong impact on resistance from team members. False

16) Software processes provide the _______ and effective planning when it is time for deliveries to software and systems integration facilities and the customer.
    A. Framework
    B. Deadline
    C. Program
    D. Software

17) When struggles with everyday challenges and problems are ignored, a team may use the required team action cycle: Choose one example below of a team action cycle below:
    A. Argue
    B. Complain
    C. Give Up
    D. Keep Going

18) When there is a face-to-face meeting as one group, teams are able to agree on planning and project schedules. Choose two positive factors that might come about as a result of this face-to-face meeting as one group:
    A. Meet and achieve team objectives
    B. Argue
    C. Resolve conflicts and issues
    D. Give up

19) Teams have the privilege and are able to provide clear communication and their own opinions seem to be successful. Choose one example below of violation of a Team Code of Conduct:
    A. Show trust in every individual
    B. Be honest with your team
    C. Lack of sharing ideas that show value
    D. Stop whining or crying

20) All major software design/development activities require consistency in accordance with the steps outlined in the use of development planning. Choose the step that might not be included in planning.
    A. Definition or updates of the process for each activity software activity
    B. Preparation of vague implementation plans
    C. Development of initial cost and schedule estimation and risks
    D. Review and assessment of the work product and task requirements

Chapter3

1) Reusable software is commonly used in:
    I. Schools
    J. Military and aerospace programs
    K. Hospitals
    L. Public Libraries

2) To support systems design, graphical representations are prepared and take the form of _____________, collaboration/communications, and component diagrams.
   F. Programs
   G. Software
   H. Data Flow
   I. Projects

3) Program and project plans at times include reusable software and identify interface requirements for use.
   True

4) The systems engineering team for programs and projects are responsible for many things. Choose one task that they are not responsible for below.
   D. Analyze the system architecture and design
   E. Development of software requirements
   F. Management of budget
   G. Allocate system requirements

5) What is the main purpose of A System Engineering Plan? (Short Answer)
   To address upgraded processes from a Systems Engineering point of view.

6) A System Engineering Plan is divided into how many sections.
   A. 5
   B. 2
   C. 4
   D. 3

7) It is important to have a System Engineering Plan to execute activities after a software design/development life cycle? False

8) Conflicts in requirements, architecture, or program and project plans should be reported to ________ for resolution.
   A. Management
   B. Affected product teams
   C. Subcontractors
   D. Customers

9) The scope of the software architecture does use interface requirements to analyze, operational designs, software risks, and ________ to determine the objectives of the architecture.
   A. Programs
   B. Projects
   C. Plans
   D. Communication

10) Using this type of plan enables performance to do the following:
   A. Be more effective and productive
   B. Enables technical planners to spend more time planning
   C. None of the above
   D. All of the above

11) It is not necessary to have a plan to document and provide the technical expertise to execute activities throughout a software design/development life cycle. False

12) Requirement is defined as:
   A. Condition or capability needed by a user to solve a problem or achieve an objective
   B. Measurement of the degrees to which software possesses given attributes
   C. The process of studying user needs
   D. Formal testing conducted by the developer to test quality of work product

13) A schedule or plan that outlines actions to be taken.
   M. Plan
   N. Program
   O. Quality Metrics
   P. Process

14) 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. Product Team
   B. Process
   C. Project Plan
   D. Quality Assurance

15) The process by which a user's needs are translated into software requirements and transformed into design/code being tested, documented, and certified for operational use:
   A. Software Contract
   B. Software Development Facilities
   C. Software Design/Development Process
   D. Software Engineering

16) The development of the software architecture is identified during development and made available and understood _____ beginning a software design/development life cycle.
   Q. Before
   R. After
   S. During
   T. None of the above

17) Continual evaluations provide the defined system and subsystem requirements to be analyzed. True

18) The purpose of software architecture evaluations is to provide a common approach to provide a common approach to developing the work product architecture. True

19) Test Readiness is described as.
   A. The process of exercising or evaluating a system by manual or automated means
   B. A document describing the conduct and results of testing
   C. Ensuring that the software tests are complete and carry out the intent of the software test plan
   D. A software entity designated for delivery to the user

20) The inspection performed to ensure software engineering requirements and processes have been applied to acceptance testing and delivery to customers is called ____ First-Article Inspection _____. (Short Answer)

Chapter4

1) _______ is developed to describe a flow of operations for the performance of systems and software implementation.
   U. Architecture
   V. Use Case
   W. Integration
   X. Traceability

2) The period of time that begins with the decision to develop a software product and ends when the product is delivered.
   J. Software Design/Development Process
   K. Software Life Cycle
   L. Software Contract
   M. Software Engineering

3) Define and complete software requirements are critical to have in place before formal review acceptance.
   True

4) Prerequisite to acceptance of the configuration item. A technical understanding is accomplished concerning the validation and verification per the test plan concerning software.
   A. Functional Configuration Audit
   B. Interface Requirement
   C. Physical Configuration Audit
   D. Requirements Documentation

5) A product provided by software design that consists of requirements, codes, diagrams, documentation, and development folders.
   A. Waiver
   B. Validation
   C. Work Product
   D. Project Plan

6) Out of the following options below, choose two effective methods used in the software requirements development phase?
   A. Use Case
   B. Functions
   C. Face-to-Face meetings
   D. Argue

7) Software requirements establish the principals for software design and integration test activities for both software and systems integration. True

8) The tools Dynamic Object Oriented Requirements System (DOORS) can be used for the __________ and modeling to gain an understanding of potential architectures and associated software requirements.
   H. Testing
   I. Functions
   J. Integration
   K. Analysis

9) Software requirements establish the principals for software design and integration test activities for both software and systems integration. True

10) The most significant factor related to high failure rate for released software is poor and undefined requirement gathering, analysis, and management. True

11) This case includes functionality, performance, maintenance, and support considerations, as well as the work product's operational environment, including boundaries and constraints.
   A. Use Case
   B. Operational Case
   C. Object Code
   D. Rational Clear Case

12) The functional software design/development life cycle states and modes are established per ___________.

A. System design
B. System requirements
C. Systems Engineering
D. Software Test

13) The time sequence, __________, and probability of executing to define and redefine functional interface requirements apply to system architectures.

A. Weather
B. Diagram
C. Conditions
D. Design

14) Graphical presentations are prepared and take the form of pictures and hardware component diagrams. False

15) The integration of requirements is the _________ of a functional architecture into optimal design solutions.

A. Beginning
B. Execution
C. Transformation
D. Process

16) Software requirements are traceable from ______________ or user requirements and clearly lead to a software architectural component.

A. System Software
B. System Requirements
C. Software Engineering
D. Software Configuration

17) Software requirements are reviewed to ensure __________ and ___________. (Choose only two)

A. Quality
B. Verification
C. Safety
D. Validation

18) The most accomplished systems verification and validation of requirements is to plan, evaluate, and record software work product compliance with defined requirements. True

19) Defined and complete software requirements are critical to have in place __________ formal review acceptance.

A. Before
B. After
C. During
D. Not Important

20) Senior program and project managers should look for software requirements tools that meet the following: (Choose only two)

A. Ability to impose requirements in multiple formats
B. Lack support for software baselines and releases
C. No alerts to modifications of the requirements database
D. Support traceability and impact analysis

Chapter5

1) The peer review starts with requirements, design models, and uninterrupted code and __________ for the software designer.
   A. Verification
   B. Unit tests
   C. Validating
   D. Execution

2) The development plan (DP) for software is a ________ and _________ process useful for implementation and applicable standards.
   A. Validated
   B. Documented
   C. Well-defined
   D. Standard

3) Software design is an inconsistent approach and method for the development of software requirements in defined designs of a work product. False

4) The tasks for the development of top-level software design architecture include the identification of major software functions, functional hierarchy diagrams and _________________.
   A. Hardware/software interfaces
   B. Implementation phase
   C. Integration Testing
   D. Peer Review

5) Give one example of peer review methods.
   A. Inspection
   B. Integration
   C. Validation
   D. Team Meetings

6) The peer review verification method identifies ________ and ___________. (Choose only two)
   A. Software bugs
   B. Software Integration
   C. Validation
   D. Errors

7) One example of peer review methods include paired programming. True

8) The criteria for conducting peer reviews including the following. (Choose only two)
   A. Assign reviewers
   B. Test software
   C. Introduce training materials
   D. Schedule the peer review at a time convenient for only management

9) Technique to reduce the time to improve productivity through the simultaneous performance of activities and processing of information.
   A. Lean software design/development
   B. Concurrent software design/development method
   C. All of the above
   D. None of the above

10) Concurrent software design/development activities don't require software designers who have enough expertise to anticipate where the defined design is going. False

11) This second method indicates that it is far more effective to have small working teams across the boundaries of informational handoffs, reduce paperwork loads, and maximize strong communication.
A. Lean software design/development
B. Software system design
C. All of the above
D. None of the above

12) The lean software design/development objective is to move as many changes as possible from the _________ curve to the __________ curve.
A. Horizontal
B. Top
C. Diagonal
D. Bottom

13) Agile provides team interactions that deal with processes and ____ tools ___. (Short answer)

14) There are four key elements for Agile software engineering. (Choose two)
A. The team has control of work assignments
B. Management has control of work assignments
C. Change is good: "Think outside the box"
D. Customer satisfaction and expectations are not valued

15) The Agile process method for team efforts reflects how a team of software people work together. True

16) The process of identifying and defining the configuration items in a system, controlling the changes and release of these items throughout the system life cycle, and recording and reporting the status of change requests to verify completeness.
A. Configuration Audit Plan
B. Configuration Management Plan
C. Configuration Management
D. Configuration Item

17) Effective methods for software and systems integration efforts inject ________ from inside the software design/development sector.
E. Awards
F. Profit
G. Criticism
H. Support

18) The attributes of a good software designer/developer are the following. (Circle two)
A. Dependant
B. Independent
C. Flexible
D. Uncooperative

19) To accomplish the goal of zero defects, team members must have highly structured and robust processes for each step in a software life cycle. True

20) If an activity does not change the functionality of code or the software programming activity, it is considered a _________.
A. Waste
B. Benefit
C. Corrective Action
D. Defect