

Chapter 1: Introduction to the Management of Information Security

TRUE/FALSE

1. Information technology is the sole responsibility of a small, dedicated group of people in a company.
ANS: F PTS: 1 REF: 2
2. The C.I.A. triangle is an important element of the CNSS model of information security.
ANS: T PTS: 1 REF: 6
3. The CNSS security model includes detailed guidelines and policies that direct the implementation of controls.
ANS: F PTS: 1 REF: 4-5
4. The confidentiality of information is breached when unauthorized individuals or systems are able to access the information.
ANS: T PTS: 1 REF: 6
5. Corruption of information can occur only while information is being stored.
ANS: F PTS: 1 REF: 6
6. Only a deliberate attack, such as a virus, can result in the corruption of a file.
ANS: F PTS: 1 REF: 7
7. The authorization process takes place before the authentication process.
ANS: F PTS: 1 REF: 8
8. A manager has many roles to play including informational, interpersonal, and decisional.
ANS: T PTS: 1 REF: 8
9. A manager is responsible for coordinating the completion of tasks.
ANS: T PTS: 1 REF: 8
10. All managers are expected to play a leadership role.
ANS: F PTS: 1 REF: 8
11. Both autocratic and democratic leaders tend to be action-oriented.
ANS: T PTS: 1 REF: 9
12. Tactical planning focuses on the day-to-day operation of local resources.

ANS: F PTS: 1 REF: 9

13. Leadership includes supervising employee behavior, performance, attendance and attitude.

ANS: T PTS: 1 REF: 11

14. The first step in solving problems is to gather facts and make assumptions.

ANS: F PTS: 1 REF: 12

15. When you review technological feasibility, you address the organization's financial ability to purchase the technology needed to implement a candidate solution

ANS: F PTS: 1 REF: 12

16. The set of organizational guidelines that dictate certain behavior within the organization is called planning.

ANS: F PTS: 1 REF: 14

17. Information security can be both a process and a project because it is in fact a continuous series of projects.

ANS: F PTS: 1 REF: 15

18. Unlike ongoing operations, project management involves the short-term gathering of a group that completes the project, and whose members are then released, and perhaps assigned to other projects.

ANS: T PTS: 1 REF: 16

19. Changing only one of the project plan elements does not usually affect the accuracy and reliability of the estimates of the other two.

ANS: F PTS: 1 REF: 18

20. Project team members may require special training on newly introduced technologies, and this may increase the risk of human resource turnover because personnel trained in a new, high-demand skill are more likely to leave the organization in search of better opportunities elsewhere.

ANS: F PTS: 1 REF: 20

21. In the WBS approach, a project plan is first broken down into a small tasks or specific action steps.

ANS: F PTS: 1 REF: 26

22. A project can have more than one critical path.

ANS: T PTS: 1 REF: 31

23. The two network scheduling techniques, the Critical Path Method and PERT, are similar in design.

ANS: T PTS: 1 REF: 32

24. An effective project management software application is capable of eliminating the need for a project manager.

ANS: F PTS: 1 REF: 33

25. Any project manager is better served using a tool they know, rather than an overly complex one that he or she cannot use suitably.

ANS: T PTS: 1 REF: 33

MODIFIED TRUE/FALSE

1. The protection of an organization's information assets is the primary mission of the information technology community. _____

ANS: F, information security

PTS: 1 REF: 3

2. Network security encompasses strategies to protect people, tangible assets, and the workplace from various threats. _____

ANS: F, Physical

PTS: 1 REF: 4

3. Operations security focuses on securing the organization's ability to carry out its operational activities without interruption or compromise. _____

ANS: T PTS: 1 REF: 4

4. Communications security addresses the protection of an organization's data networking devices, connections, and contents. _____

ANS: F, Network

PTS: 1 REF: 4

5. 1) Policy, 2) awareness, training and education, and 3) technology are concepts vital for the protection of information. _____

ANS: T PTS: 1 REF: 4

6. The three desirable characteristics of information on which the C.I.A. triangle is founded are confidentiality, integrity, and authorization. _____

ANS: F, availability

PTS: 1 REF: 6

7. The integrity of information is threatened when it is exposed to corruption, damage, or destruction. _____

ANS: T

PTS: 1

REF: 6

8. The characteristic of information that enables a user to access it without interference or obstruction and in a useable format is confidentiality. _____

ANS: F, availability

PTS: 1

REF: 7

9. An information system that is able to recognize the identity of individual users is said to provide authentication. _____

ANS: F, identification

PTS: 1

REF: 7

10. During the identification process, a control provides proof that a user possesses the identity that he or she claims. _____

ANS: F, authentication

PTS: 1

REF: 7

11. The process of achieving objectives using a given set of resources is called management. _____

ANS: T

PTS: 1

REF: 8

12. Autocratic leaders typically seek input from all interested parties, and then formulate a position that can be supported by the majority. _____

ANS: F, Democratic

PTS: 1

REF: 8

13. Democratic leaders tend to make decisions only when they are needed to avoid bringing the process to a complete halt. _____

ANS: F, Laissez-faire

PTS: 1

REF: 9

14. Leadership generally addresses the direction and motivation of the human resource. _____

ANS: T

PTS: 1

REF: 8

15. Popular management theory categorizes the principles of management into planning, organizing, leading and controlling. _____

ANS: T

PTS: 1

REF: 9

16. The first step in solving problems is to recognize and gather facts about the problem. _____

ANS: F, define

PTS: 1 REF: 12

17. In reviewing behavior feasibility, you assess a candidate solution according to the likelihood that management will adopt and support a solution, rather than resisting it. _____

ANS: F
subordinates
employees

PTS: 1 REF: 12

18. Policies are InfoSec operations that are specifically managed as separate entities.

ANS: F, Programs

PTS: 1 REF: 14

19. Operations are discrete sequences of activities with starting points and defined completion points.

ANS: F, Projects

PTS: 1 REF: 16

20. Activity definition is a process in the knowledge area of time, in project management methodology.

ANS: T PTS: 1 REF: 19

21. Administrative closure is a process in the knowledge area of communications, in project management methodology. _____

ANS: T PTS: 1 REF: 19

22. The project plan inputs include work time, resources and project activities.

ANS: F, deliverables

PTS: 1 REF: 20

23. During the project execution phase, the positive feedback loop or cybernetic loop ensures that progress is measured periodically. _____

ANS: F, negative

PTS: 1 REF: 11

24. Training project team members on how to use new technologies when they are introduced decreases the risk of human resource turnover. _____

ANS: F, increases

PTS: 1 REF: 20

25. WBS is a simple planning tool used to create a(n) project plan. _____

ANS: T PTS: 1 REF: 26

26. The first step in the WBS is to identify the work to be accomplished in the task or task area; that is, the activities and constraints. _____

ANS: F, deliverables

PTS: 1 REF: 27

27. One method for sequencing tasks and subtasks in a project plan is known as Web scheduling, referring to the collection of possible pathways to project completion from the beginning task to the ending task. _____

ANS: F, network

PTS: 1 REF: 28

28. The most popular of networking dependency diagramming techniques is the Program Evaluation and Review Technique (PERT), similar to the Critical Path Method. _____

ANS: T PTS: 1 REF: 30

29. Among the advantages to the PERT method is planning large projects is made easier by facilitating the identification of pre- and post- activities. _____

ANS: T PTS: 1 REF: 31

30. Another popular project management tool is the bar or McCumber chart, named for its developer, who created this method in the early 1900s. _____

ANS: F, Gantt

PTS: 1 REF: 32

MULTIPLE CHOICE

1. A group of decision makers and/or working professionals is known as a(n) ____.
- a. area of interest
 - b. decision partner
 - c. community of interest
 - d. source of interest

ANS: C PTS: 1 REF: 3

2. The ____ community has the lead role in protecting the organization's information assets.
- a. information technology
 - b. information security
 - c. general business
 - d. general public

ANS: B PTS: 1 REF: 3

3. The ____ community supplies and supports information technology appropriate to a business needs.
- a. information security
 - b. information technology
 - c. general business
 - d. general public

ANS: B PTS: 1 REF: 3

4. The ____ community allocates resources necessary for all of to the communities of interest to function properly.
- a. information security
 - b. information technology
 - c. general business
 - d. general public

ANS: C PTS: 1 REF: 3

5. Physical security is concerned with the protection of the ____.
- a. people within the organization
 - b. physical assets of the organization
 - c. network devices of the organization
 - d. data of the organization

ANS: B PTS: 1 REF: 4

6. Communications security involves the protection of an organization's ____.
- a. employees
 - b. physical assets
 - c. technology
 - d. data network devices

ANS: D PTS: 1 REF: 4

7. ____ security addresses the ability to use the network to accomplish the organization's data communication functions.
- a. Communications
 - b. Network
 - c. Operations
 - d. Physical

ANS: B PTS: 1 REF: 4

8. The protection of information and the systems and hardware that use, store, and transmit that information is known as ____.
- a. security
 - b. information security
 - c. authentication
 - d. identification

ANS: B PTS: 1 REF: 4

9. According to the C.I.A. triangle, the three desirable characteristics of information are confidentiality, integrity, and ____.
- a. accountability
 - b. availability
 - c. authorization
 - d. authentication

ANS: B PTS: 1 REF: 6

10. ____ of information ensures that only those with sufficient privileges and a demonstrated need may access certain information.

- a. Integrity
- b. Availability
- c. Authentication
- d. Confidentiality

ANS: D PTS: 1 REF: 6

11. ____ is the quality or state of being whole, complete, and uncorrupted.

- a. Integrity
- b. Authorization
- c. Security
- d. Confidentiality

ANS: A PTS: 1 REF: 6

12. During the transmission of information, algorithms, hash values, and error-correcting codes help ensure the ____ of the information.

- a. confidentiality
- b. integrity
- c. corruption
- d. availability

ANS: B PTS: 1 REF: 7

13. The ____ of information refers to the ability to access information without interference or obstruction and in a useable format.

- a. privacy
- b. confidentiality
- c. integrity
- d. availability

ANS: D PTS: 1 REF: 7

14. An information system possesses the characteristic of ____ when it is able to recognize individual users.

- a. authentication
- b. identification
- c. authorization
- d. accountability

ANS: B PTS: 1 REF: 7

15. ____ occurs when a control provides proof that a user possesses the identity that he or she claims.

- a. Identification
- b. Authentication
- c. Authorization
- d. Accountability

ANS: B PTS: 1 REF: 7

16. The use of cryptographic certificates to establish Secure Sockets Layer (SSL) connections is an example of the ____ process.

- a. accountability
- b. authorization
- c. identification
- d. authentication

ANS: D PTS: 1 REF: 7-8

17. The activation and use of access control lists is an example of the ____ process.

- a. identification
- b. accountability
- c. authorization
- d. authentication

ANS: C PTS: 1 REF: 8

18. The characteristic of ____ exists when a control provides assurance that every activity undertaken can be attributed to a named person or automated process.

- a. accountability
- b. privacy
- c. authorization
- d. authentication

ANS: A PTS: 1 REF: 8

19. Audit logs that track user activity on an information system provide ____.
- a. identification
 - b. authorization
 - c. accountability
 - d. authentication

ANS: C PTS: 1 REF: 8

20. Identification is typically performed by means of a(n) ____.
- a. audit log
 - b. user name
 - c. cryptographic certificate
 - d. access control list

ANS: B PTS: 1 REF: 7

21. A manager has informational, interpersonal, and ____ roles within the organization.
- a. decisional
 - b. creative
 - c. security related
 - d. leadership

ANS: A PTS: 1 REF: 8

22. ____ leaders reserve all decision-making responsibilities for themselves.
- a. Autocratic
 - b. Democratic
 - c. Laissez-faire
 - d. Diplomatic

ANS: A PTS: 1 REF: 8

23. Autocratic leaders usually ____.
- a. seek input from all interested parties
 - b. request ideas and suggestions
 - c. do not accept alternative viewpoints
 - d. sit back and allow the process to develop as it goes

ANS: C PTS: 1 REF: 8

24. ____ leaders are also known as “laid-back” leaders.
- a. Autocratic
 - b. Laissez-faire
 - c. Democratic
 - d. Aristocratic

ANS: B PTS: 1 REF: 9

25. Strategic planning ____.
- a. focuses on production planning
 - b. occurs at the highest levels of the organization
 - c. focuses on the day-to-day operation of local resources
 - d. occurs in the short or immediate term

ANS: B PTS: 1 REF: 9

26. The process that develops, creates, and implements strategies for the accomplishment of objectives is called ____.
- a. leading
 - b. controlling
 - c. organizing
 - d. planning

ANS: D PTS: 1 REF: 9

27. The principle of management dedicated to the structuring of resources to support the accomplishment of objectives is called ____.

- a. organization
- b. planning
- c. controlling
- d. leading

ANS: A PTS: 1 REF: 10

28. Which of the following is the first step in the problem-solving process?

- a. Analyze and compare the possible solutions
- b. Develop possible solutions
- c. Recognize and define the problem
- d. Select, implement and evaluate a solution

ANS: C PTS: 1 REF: 12

29. Which of the following is NOT a step in the problem-solving process?

- a. Select, implement and evaluate a solution
- b. Analyze and compare possible solutions
- c. Build support among management for the candidate solution
- d. Gather facts and make assumptions

ANS: C PTS: 1 REF: 11-13

30. Which of the following is NOT a Principle of Information Security Management?

- a. planning
- b. protection
- c. project management
- d. principles

ANS: D PTS: 1 REF: 13

31. Which of the following Principles of Information Security Management seeks to dictate certain behavior within the organization through a set of organizational guidance?

- a. planning
- b. policy
- c. programs
- d. people

ANS: B PTS: 1 REF: 14

32. Which of the following is a project not a managed process?

- a. monitoring external and internal environment during incident response
- b. installation of a new firewall system
- c. ongoing risk assessments of routine operations
- d. continuous vulnerability assessment and vulnerability repair

ANS: B PTS: 1 REF: 15

33. A project cannot be ruled successful if ____.

- a. it is completed on time or early as compared to the baseline project plan
- b. the deliverables are accepted by the end user and/or assigning entity
- c. it meets most of the specifications as outlined in the approved project definition
- d. it comes in at or below the expenditures planned for in the baseline budget

ANS: C PTS: 1 REF: 17

34. Which of the following is NOT a benefit that organizations that make project management a priority accrue?

- a. implementation of a methodology ensures that the project is not rushed or lengthened
- b. identification of specific responsibility for all assigned personnel lessens ambiguity and reduces confusion when individuals are assigned to new or different projects
- c. establishing measures of performance and creation of project milestones simplifies project

monitoring.

- d. clear definition of project constraints, including time frame, budget, and minimum quality requirements increases the likelihood that the project stays within them.

ANS: A PTS: 1 REF: 17

35. Information security project managers often follow methodologies based on what methodology promoted by the Project Management Institute?
- a. The Security Systems Development Life Cycle (SecSDLC)
 - b. The Security Project And Management Methodology (SPAMM)
 - c. Project Management System Methodology (PMS/Meth)
 - d. Project Management Body of Knowledge (PMBOK)

ANS: D PTS: 1 REF: 18

36. Which of the following is NOT a knowledge area in the Project Management knowledge body?
- a. Integration
 - b. Quality
 - c. Scope
 - d. Technology

ANS: D PTS: 1 REF: 19

37. Which of the following is NOT a project plan input?
- a. Resources
 - b. Work time
 - c. Project deliverables
 - d. All of these are inputs

ANS: D PTS: 1 REF: 20

38. ____ occurs when the quantity or quality of project deliverables is expanded from the original project plan
- a. Scope creep
 - b. Deliverable modification
 - c. Deliverable expansion
 - d. The Dilbert Principle(R)

ANS: A PTS: 1 REF: 20

39. ____ is one of the most frequently cited failures in project management.
- a. Overly restrictive management
 - b. Excessive personnel on project
 - c. Failure to meet project deadlines
 - d. Loose or ambiguous project specifications

ANS: C PTS: 1 REF: 21

40. If the project deliverables meets the requirements specified in the project plan, the project has met its ____ objective, otherwise it has not.
- a. cost
 - b. resources
 - c. quality
 - d. time

ANS: C PTS: 1 REF: 22

41. A good plan defines project deliverables in ____ against which actual results are easily compared.
- a. unambiguous terms
 - b. financial terms
 - c. quality mandates
 - d. terms of outcomes

ANS: A PTS: 1 REF: 22

42. The management of human resources must address many complicating factors; which of the following is NOT among them?
- a. All workers operate at approximately the same level of efficiency
 - b. Not all workers begin the project with the same degree of skill
 - c. Skill mixtures among the actual project workers seldom match the needs of the project plan.
 - d. Some tasks may require skills that are not available from resources on hand

ANS: A PTS: 1 REF: 23

43. Managing human resources in information security projects has additional complexities, including:
- a. Extended clearances may be required
 - b. InfoSec projects may deploy new technology controls for which the organization lacks the appropriate skilled resources
 - c. both A and B
 - d. None of these

ANS: C PTS: 1 REF: 23

44. Project risk management is very similar to normal security risk management, except the ____ are usually much smaller because the area to be protected is the individual project and not the entire organization.
- a. budget and resources
 - b. scope and scale
 - c. personnel and management support
 - d. none of these

ANS: B PTS: 1 REF: 24

45. The Project Management Institute (PMI) sponsors two project management certificate programs: the Project Management Professional (PMP) and the ____.
- a. Certified Associate in Project Management (CAPM)
 - b. Certified Information Security Project Manager (CISPM)
 - c. Certified Project Management Manager (CPMM)
 - d. Certified Project Management Bringer of Knowledge (CPMBoK)

ANS: A PTS: 1 REF: 25

46. ____ occurs when the project manager spends more time documenting project tasks, collecting performance measurements, recording project task information, and updating project completion forecasts than accomplishing meaningful project work.
- a. Projectitus
 - b. Low productivity
 - c. The Peter Principle
 - d. The Dilbert Principle (R)

ANS: A PTS: 1 REF: 25

47. In the WBS approach, the project plan is first broken down into tasks placed on the WBS task list. The minimum attributes that should be identified for each task include all but which of the following?
- a. Work to be accomplished (activities and deliverables)
 - b. Estimated amount of effort required for completion, in hours or workdays
 - c. The common or specialized skills needed to perform the task
 - d. Task independencies

ANS: D PTS: 1 REF: 26

48. ____ was originally developed in the late 1950s to meet the need of the rapidly expanding engineering projects associated with government acquisitions such as weapons systems.
- a. GANTT
 - b. PERT
 - c. CPM
 - d. WBS

ANS: B PTS: 1 REF: 30

49. In the Program Evaluation and Review Technique, by identifying the sequence of events or activities that requires the longest duration to complete, and that therefore cannot be delayed without delaying the entire project, you have identified the ____.
- a. program path
 - b. critical function
 - c. critical path
 - d. crucial factor set

ANS: C PTS: 1 REF: 30

50. Which of the following is NOT an advantage of the PERT method?
- a. Planning large projects is made easier by facilitating the identification of pre- and post activities.
 - b. The impact of changes on the system are anticipated.
 - c. Information is presented in a straightforward format that both technical and non-technical managers can understand and refer to in planning discussions.
 - d. Employees benefit from the formal training required for the method.

ANS: D PTS: 1 REF: 31

51. Which of the following is NOT a disadvantage of the PERT method?
- a. Diagrams can become awkward and cumbersome
 - b. Diagrams can become expensive to develop and maintain
 - c. It can be difficult to place an accurate "time to complete" on some tasks
 - d. All of these are disadvantages of the PERT method

ANS: D PTS: 1 REF: 31-32

52. The ____ diagramming technique uses simple bar charts that are simple to read and thus easy to present to management.
- a. PERT
 - b. GANTT
 - c. CPM
 - d. WBS

ANS: B PTS: 1 REF: 32

53. The Gantt chart lists ____ on its vertical axis and provides a simple time line on the horizontal axis.
- a. resources
 - b. time
 - c. activities
 - d. None of these

ANS: C PTS: 1 REF: 32

54. If you are considering using an automated project management tools, which of the following do you NOT have to keep in mind?
- a. Software programs cannot replace skilled and experienced project managers
 - b. Software tools can get in the way of the work
 - c. More complex tools make the project more efficient and effective
 - d. All of these should be kept in mind when using an automated project management tool

ANS: C PTS: 1 REF: 33

55. It is possible to take a very complex operation and diagram it in PERT if you can answer three key questions about each activity. Which of the following is NOT one of them?
- How long will it take?
 - What activity occurs immediately before this activity?
 - What activity occurs immediate activity after this activity?
 - What other activities require the same resources as this activity?

ANS: D PTS: 1 REF: 30

COMPLETION

1. The _____ community supports the business objectives of an organization by supplying and supporting information technology appropriate to the business' needs.

ANS: information technology

PTS: 1 REF: 3

2. The _____ community articulates and communicates organizational policy and objectives.

ANS: general business

PTS: 1 REF: 3

3. _____ security encompasses strategies to protect people, assets, and the workplace.

ANS: Physical

PTS: 1 REF: 4

4. _____ security encompasses the protection of an organization's communications media, technology, and content.

ANS: Communications

PTS: 1 REF: 4

5. _____ is the protection of information and its critical elements, including the systems and hardware that use, store, and transmit that information.

ANS:
Information Security
InfoSec

PTS: 1 REF: 4

6. The CNSS Security model known as the McCumber cube examines the confidentiality, integrity and _____ of information whether in storage, processing or transmission.

ANS: availability

PTS: 1 REF: 5

7. The _____ process provides assurance that the user has been specifically and explicitly authorized by the proper authority to access, update, or delete the contents of an information asset.

ANS: authorization

PTS: 1 REF: 8

8. _____ is the process of achieving objectives using a given set of resources.

ANS: Management

PTS: 1 REF: 8

9. The job of a(n) _____ is to marshal and administer resources, coordinate the completion of tasks, and handle the many roles necessary to complete the desired objectives.

ANS: manager

PTS: 1 REF: 8

10. The three behavioral types of leaders are autocratic, laissez-faire, and _____.

ANS: democratic

PTS: 1 REF: 8

11. The three levels of planning are strategic planning, tactical planning, and _____ planning.

ANS: operational

PTS: 1 REF: 9

12. The term _____ refers to the end result of a planning process.

ANS: goal

PTS: 1 REF: 10

13. Monitoring progress toward completion, and making necessary adjustments to achieve desired objectives, requires the exercise of _____.

ANS: control

PTS: 1 REF: 11

14. The set of organizational guidelines that dictates certain behavior within the organization is called _____.

ANS: policy

PTS: 1 REF: 14

15. _____ are the operations conducted within InfoSec, which are specifically managed as separate entities.
- ANS: Programs
- PTS: 1 REF: 14
16. _____ are discrete sequences of activities with starting points and defined completion points.
- ANS: Projects
- PTS: 1 REF: 16
17. _____ is defined as the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.
- ANS: Project management
- PTS: 1 REF: 16
18. While other project management approaches exist, the _____, from the Project Management Institute is considered the industry best practice.
- ANS:
PMBoK
Project Management Body of Knowledge
- PTS: 1 REF: 16
19. Project plan inputs include work time, resources, and project _____.
- ANS: deliverables
- PTS: 1 REF: 20
20. _____ occurs when the quantity or quality of project deliverables is expanded from the original project plan.
- ANS: Scope creep
- PTS: 1 REF: 20
21. If the project deliverables meet the requirements specified in the project plan, the project has met its _____ objective.
- ANS: Quality
- PTS: 1 REF: 22
22. _____ occurs when the project manager spends more time documenting project tasks, collecting performance measurements, recording project task information, and updating project completion forecasts than accomplishing meaningful project work.

ANS: Projectitis

PTS: 1 REF: 25

23. The first step in the WBS is to identify the work to be accomplished in the task or task area; that is, the activities and _____.

ANS: deliverables

PTS: 1 REF: 27

24. While the PERT technique was being developed to support government acquisitions, the _____ technique, similar in structure, was being developed in industry.

ANS:

CPM

Critical Path Method

PTS: 1 REF: 30

25. In the PERT technique, the difference in time between the critical path and any other path is called _____.

ANS: slack time

PTS: 1 REF: 31

ESSAY

1. Explain the differences between a leader and a manager.

ANS:

The distinctions between a leader and a manager arise in the execution of organizational tasks. A leader provides purpose, direction, and motivation to those that follow. By comparison, a manager administers the resources of the organization. He or she creates budgets, authorizes expenditures, and hires employees.

PTS: 1 REF: 8

2. List and explain the critical characteristics of information.

ANS:

Confidentiality of information ensures that only those with sufficient privileges and a demonstrated need may access certain information. When unauthorized individuals or systems can view information, confidentiality is breached.

Integrity is the quality or state of being whole, complete, and uncorrupted. The integrity of information is threatened when it is exposed to corruption, damage, destruction, or other disruption of its authentic state.

Availability is the characteristic of information that enables user access to information without interference or obstruction and in a useable format.

Privacy means the information that is collected, used, and stored by an organization is intended only for the purposes stated to the data owner at the time it was collected.

An information system possesses the characteristic of identification when it is able to recognize individual users.

Authentication occurs when a control provides proof that a user possesses the identity that he or she claims.

Authorization provides assurance that the user (whether a person or a computer) has been specifically and explicitly authorized by the proper authority to access, update, or delete the contents of an information asset.

Accountability exists when a control provides assurance that every activity undertaken can be attributed to a named person or automated process.

PTS: 1 REF: 6-8

3. List and explain the four principles of management under the contemporary or popular management theory. Briefly define each.

ANS:

Popular management theory, which categorizes the principles of management into planning, organizing, leading, and controlling (POLC).

The process that develops, creates, and implements strategies for the accomplishment of objectives is called planning.

The management function dedicated to the structuring of resources to support the accomplishment of objectives is called organization.

Leadership includes supervising employee behavior, performance, attendance, and attitude. Leadership generally addresses the direction and motivation of the human resource.

Monitoring progress toward completion, and making necessary adjustments to achieve desired objectives, requires the exercise of control.

PTS: 1 REF: 9-11

4. List the steps that can be used as a basic blueprint for solving organizational problems.

ANS:

1. Recognize and Define the Problem
2. Gather Facts and Make Assumptions
3. Develop Possible Solutions
4. Analyze and Compare Possible Solutions.
5. Select, Implement and Evaluate a Solution.

PTS: 1 REF: 12-13

5. List the advantages and disadvantages of using the Program Evaluation and Review Technique method?

ANS:

Among the advantages to the PERT method are:

- >Planning large projects is made easier by facilitating the identification of pre- and post activities.
- >Planning to determine the probability of meeting requirements (that is, timely delivery through calculation of critical paths) is allowed.
- >The impact of changes on the system are anticipated. Should a delay in one area occur, how does it affect the overall project schedule?
- >Information is presented in a straightforward format that both technical and non-technical managers can understand and refer to in planning discussions.
- >No formal training is required. After a brief explanation most people understand it thoroughly.

Disadvantages of the PERT method include:

- >Diagrams can become awkward and cumbersome, especially in very large projects.
- >Diagrams can become expensive to develop and maintain due to the complexities of some project development processes.
- >It can be difficult to place an accurate “time to complete” on some tasks, especially in the initial construction of a project; inaccurate estimates invalidate any close critical path calculations.

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