PROJECT MANAGEMENT PROFESSIONALS (CAPM/PMP).

PAST QUESTIONS & ANSWERS.

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Introduction

The process of becoming a project manager always comes with mixed feelings of whether you are really ready to do this or whether you can go right on. Most people fail CAPM/ PMP not because of the high technicalities involved but because of the fear prospective project managers had already incubated in their minds.

Surely, becoming a project manager is not an easy task but it requires your commitment and conviction. That's why this piece is put together to guide you.

Wishing you all the best.

1. A series of activities to create a unique product or service by a specific date is best described as which one of the following?

    A. A program
    B. An operation
    C. A project
    D. A subproject

2. Which of the following is likely to be part of an operation?

    A. Providing electricity to a community
    B. Designing an electrical grid for a new community
    C. Building a new dam as a source for electricity
    D. Informing the public about changes at the electrical company

3. Of the following, which one is the best example of progressive elaboration?

    A. It is the process of decomposing the work into small, manageable tasks.
    B. It is the process of taking a project from concept to completion.
    C. It is the process of taking a project from concept to detailed project plan.
    D. It is the process of identifying the business needs of a potential project.

4. Of the following, which one is not a typical activity of a project manager?

    A. Controlling the project work
    B. Planning the project schedule
    C. Milestone completion
    D. Planning

5. In what process is the project manager selected to manage a project?

    A. Initiation
    B. Planning
    C. Controlling
    D. Design

6. What is the project scope?

    A. It is the design of experiments used to complete the project work.
    B. It is the combination of the cost and the schedule required to complete the project work.
    C. It is the description of the required work, and only the required work, that is

necessary to complete the project.
  D. It is the description of the required work and resources needed to complete the project.

7. The closing process is also known as which of the following?

   A. Project completion
   B. Project postmortem
   C. Project wake
   D. Project parity

8. Which of the following is not a project management process?

   A. Initiating
   B. Planning
   C. Controlling
   D. Designing

9. You are the project manager of the Speaker Design Project. Your project sponsor wants to know why you believe the planning process will last throughout the project. Of the following, which is the best answer?

   A. You are not very familiar with speakers and will have to revisit the planning process often.
   B. The design of a new product requires planning throughout the closing process.
   C. The design of any project should allow the project manager and the project team to revisit the planning phase as needed.
   D. All processes within a project are iterative.

10. Of the following, which one is not part of Project Integration Management?

    A. The creation of the project plan
    B. The interaction between project teams
    C. The execution of the project plan
    D. The documentation of changes to the project plan

11. You are the project manager of the User Manual Project. The user manual your team is creating will be packaged with the office chairs your company makes. Nancy Martin, the Marketing Director and Sponsor of the project, requests that 30 additional pages be added to the user manual. These extra pages will describe the additional line of office products available through your company. What is your initial reaction to this proposed change?

    A. Approve the change as the project sponsor has made it.
    B. Deny the change as the project is already in the implementation phase.
    C. Approve the change if the budget can afford the expense.

D. Deny the change as it falls outside of the project scope.

12. What activity must the project manager and the project customers do to complete the project? (Choose the best answer.)

   A. Approve the project budget
   B. Design the project schedule
   C. Close out the procurement documents
   D. Verify the project scope

13. You are the project manager for the Advertising Specialties Project. This project will mail each client a pen, coffee mug, and magnet-all to be designed with your company logo and mascot on it. You have worked on a similar project before, but have a new project team for this particular task. Of the following, which is the best source of information for creating the project schedule?

   A. Project team input
   B. Historical information input
   C. Project sponsor input
   D. Vendor input

14. Of the following, which is a mathematical model that can be used in assembling a project budget?

   A. Pareto formulas
   B. Parametric Modeling
   C. Parametric Estimating
   D. EVM

15. The company-wide policy that mandates all project quality is called what?

   A. Quality planning
   B. Quality control
   C. Quality policy
   D. ISO 9000

16. Which of the following can the project manager use to lead the project team to project completion?

   A. Project schedules
   B. EVM
   C. Lectures and motivational speeches
   D. Approved incentives

17. Sam is the project manager for a large, complex manufacturing project. There are many permits, regulatory filings, and accounting procedures for this project. In

addition, there are technical guidelines and procedures that must be followed, verified, and approved. For a project of this nature, which of the following is most important?

    A. Internal politics
    B. Collocated teams
    C. Subprojects for minor details
    D. An information retrieval system

18. Of the following, which is not an example of risk?

    A. Interrupting a business process with project implementation
    B. Losing customers due to a project implementation
    C. Adding team members during the project implementation
    D. Updating the project plan during the implementation

19. Which document will guide the interaction between the project manager and a selected vendor on a project?

    A. The project plan
    B. The SOW
    C. The procurement management plan
    D. The contract

20. Of the following, what does the project manager typically do the most of?

    A. Communications
    B. Budget management
    C. Project organization
    D. Manage team negotiations

21. A program is which one of the following?

    A. A very large, complex project
    B. A collection of small projects with a common goal
    C. A collection of projects with a common cause
    D. A collection of subprojects with a common customer

22. Who manages programs?

    A. Management
    B. Project sponsors
    C. Project managers
    D. Program managers

23. You have an excellent idea for a new project that can increase productivity by 20 percent in your organization. Management, however, declines to approve the proposed project because too many resources are already devoted to other projects. You have just experienced what?

    A. Parametric modeling
    B. Management by exception
    C. Project Portfolio Management
    D. Management Reserve

24. Complete the following statement. All businesses are in business to…

    A. Make money
    B. Complete their company's vision
    C. Complete their company's mission statement
    D. Provide jobs and opportunities for others

25. Of the following, which is the most important person involved with a project?

    A. The project manager
    B. The project sponsor
    C. The CEO
    D. The customer

Answers

1. ☑ **C.** A project is a temporary endeavor to create a unique product or service. Operations are ongoing activities.

    ☒ **A** is incorrect, because a program is a collection of projects with a common cause. **B** is not a valid choice as operations are ongoing activities. Subprojects (answer **D**) represent portions of a project broken off into smaller endeavors.

2. ☑ **A.** An electrical company's primary operation is to provide electricity.

    ☒ **B** and **C** are projects. While choice **D**, providing information could potentially be part of an ongoing operation, choice A is still the best answer presented.

3. ☑ **C.** Of the choices given, C is the best. Progressive elaboration is the process of taking a project concept through to the project plan. As the planning and research activities continue, the more detailed and focused the concept becomes. Progressive elaboration happens throughout the project. It is the process of elements within the project becoming more and more exact as additional information and details become available.

    ☒ **A** defines the process of creating a WBS. **B** is the process of completing the project, and **D** is one of the activities in the project initiation phase.

4. ☑ **C.** Milestones are not completed by the project manager, but by the project team. In addition, milestones are the results of activities, not activities themselves.

☒ **A**, **B**, and **D** are regular activities of the project manager. If the project manager isn't completing these activities, then the project will most likely fail.

5. ☑ **A.** The project manager is selected to manage a project in the Initiation process.

☒ **B**, **C**, and **D** are incorrect. Note that the design process is not one of the five project management processes. Design is often a project process that could fall into the planning process. Recall that the five processes in the project management life cycle are: Initiation, Planning, Execution, Control, and Closure.

6. ☑ **C.** The project scope is the description of the required work, and only the required work, to complete the project.

☒ **A** is incorrect because the design of experiments is a process to find solutions to problems by changing the variables that may be causing the problems. Answer **B** describes nothing more than the cost and time estimates and baselines. Answer **D** is incorrect because the scope is concerned only with the work, not the resource required to complete the work.

7. ☑ **B.** Project closure is also known as the project postmortem.

☒ Technically, the project postmortem comes after administrative closure in the closing process. **A**, **C**, and **D**, while tempting choices, are not terms that completely describe the project closure.

8. ☑ **D.** Designing is typically a phase of project management, but is not one of the five project management lifecycle processes.

☒ **A**, **B**, and **C** are valid project management lifecycle phases, so they are an incorrect choice for this question.

9. ☑ **C.** The planning process lasts through the project life cycle.

☒ **A** is not the best answer for this scenario. **B** may be correct in theory, but it does not answer the question as fully as C. Finally, **D** is incorrect since projects should be managed iteratively. Plus, D fails to answer the question fully.

10. ☑ **B.** Project Integration Management focuses on the project plan and the implementation of the project plan.

☒ While B could, in some instances, be considered incorrect if the project plan had some interaction with other project teams, the assumption cannot be made in this instance. **A**, **C**, and **D** are all part of Project Integration Management, so they are not a valid answer.

11. ☑ **D.** The project scope defines the required work, and only the required work, to complete the project.

☒ **A** is incorrect since a request comes from the project sponsor; remember that the scope must be protected from change. Once the change is properly submitted and approved, the scope will be updated to reflect the new work. Always, on the exam, protect the scope from

changes. **B** is incorrect as changes may happen throughout the project as they are approved and warranted. **C** is incorrect since changes should be based on actual need rather than financial decisions.

12. ☑ **D.** Scope verification is the proof that the project manager has completed the project.

    ☒ **A**, **B**, and **D** are typically not done with the project customers.

13. ☑ **B.** Whenever you have access to historical information, this is your best source of input.

    ☒ While **A**, **C**, and **D** may offer some value, historical information is typically the greatest input for planning.

14. ☑ **B.** Parametric modeling is a mathematical formula to apply costs to a project. For example, cost per unit, cost per metric ton, and cost per yard.

    ☒ **A** is incorrect, as it refers to the Pareto rule of 80/20. B is not a viable choice for this question. **D**, Earned Value Management, is not applicable to this situation.

15. ☑ **C.** Quality policy is the organization-wide rules and requirements for quality.

    ☒ Choice **A**, quality planning is how you, the project manager, will plan to adhere to the quality standards set by the QA policy. Choice **B**, QC, is the method of inspecting the work results to ensure they map to the QA policy. Choice **D**, ISO 9000, is a quality assurance program, not a quality system. ISO 9000 is an adherence to a series of steps or processes to necessary to complete an action. This is not the best choice for this question.

16. ☑ **D.** The project manager should use approved rewards and incentives to move the project team towards completion.

    ☒ **A** is a requirement of all projects. Answer **B**, EVM, is a method of measuring project performance. While **C** may be effective, lectures and motivational speeches can include threats, punishments, or inspirational speeches-none of which work as well as approved incentives.

17. ☑ **D.** An information retrieval system is paramount for a project with so much documentation. Technically, all projects should have an information retrieval system.

    ☒ **A**, **B**, and **C**, while evident in many projects, do not offer solutions for the problems Sam is likely to experience on this project. Note that internal politics may also be known as 'political capital.'

18. ☑ **D.** All answers, with the exception of D, are an example of risk.

    ☒ The point of risk assessment is done to allow the project to successfully encounter business risks such as a loss of money or customers. Albeit, **C**, may not be a huge risk to most projects, D is the best choice. A project manager should update the project plan as discoveries and approved changes are made to the project.

19. ☑ **D.** The contract between the organization and the vendor supercedes all other work-related documents.

    ☒ The project plan will guide the project manager and the project team to completion, but

will not supercede contracts. The SOW (statement of work), while needed and necessary, is not as important as a contract. The Procurement Management Plan will guide the user of the contract, but the contract is the most useful tool to govern contracts.

20. ☑ **A.** Communication, informal and formal, is the largest activity a project manager will undertake.

☒ **B**, **C**, and **D**. While budget management, project organization, and team negotiations may feel like they take the most time, communications are the bulk of a project manager's job.

21. ☑ **C.** Programs are a collection of projects with a common cause.

☒ **A** is incorrect because a program is a collection of projects, not just one large, complex project. **B** is incorrect because programs are not made up of just small projects. **D** is incorrect since projects with a common customer do not necessitate a program.

22. ☑ **C.** Program Managers manage programs.

☒ **A** is incorrect since Management doesn't manage programs. Project sponsors sponsor projects; they do not manage programs. **D** is incorrect, since within the program, project managers manage their projects and report to the Program Manager.

23. ☑ **C.** Project Portfolio Management is the process of choosing and prioritizing projects within an organization. An excellent project idea can still be denied if there are not enough resources to complete the project work.

☒ **A** is incorrect as it is a model to estimate costs, such as cost per ton, or cost per hour. **B** is incorrect because this is a management theory to manage people and problems. **D** is incorrect as it is an amount of time and money reserved for projects running late or over budget.

24. ☑ **A.** Businesses exist to make money.

☒ **B**, **C**, and **D** are incorrect. Businesses exist not to complete their mission statement, nor to complete their company's vision, or provide jobs. When answering questions dealing with business needs, think of the bottom line first.

25. ☑ **D.** Customers, internal or external, are the most important stakeholders in a project.

☒ **A** is incorrect, because the project manager manages the project for the customer. **B** is incorrect since the project sponsor authorizes the project. **C** is incorrect because the CEO may not even know about the project-and even then he would be interested in the success of the project for the customer.

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1. The project life cycle is comprised of which of the following?

   A. Phases
   B. Milestones
   C. Estimates
   D. Activities

2. Marcy, the project manager for the ERP Project, is about to complete the Project Phase Review. The completion of a project phase is also known as which of the following?

   A. Lessons learned
   B. Kill points
   C. Earned Value Management
   D. Conditional advancement

3. Which of the following is not a key stakeholder in a project that creates a service internal to an organization?

   A. Project manager
   B. External customers
   C. Project vendors
   D. Project team members

4. Of the following management skills, which will a project manager use most?

   A. Leading
   B. Communication
   C. Influencing the organization
   D. Negotiations

5. Managing is best described as which one of the following?

   A. Establishing direction
   B. Functional controls over the project team and stakeholders
   C. Consistently producing key results expected by stakeholders
   D. Motivating and inspiring the project team to produce results that are expected by project stakeholders

6. Ron, the project manager, expects formal communications for change requests. Of the following, which is most likely not an example of formal communication?

   A. Reports
   B. Oral presentations
   C. E-mail

D. Team meetings

7. Which of the following is an example of negotiation?

   A. Arbitration
   B. Formal communications
   C. Conferring
   D. Scope creep

8. You are the project manager for your organization. Influencing your organization requires which of the following?

   A. An understanding of the organizational budget
   B. Research and documentation of proven business cases
   C. An understanding of formal and informal organizational structures
   D. Positional power

9. Your global project is sabotaged by rumors and gossip about the project deliverable. This is an example of:

   A. Cultural achievability
   B. Cultural influences with the project team
   C. Project team mutiny
   D. Ineffective planning

10. What is the difference between a standard and a regulation?

    A. Standards are mandatory; regulations are not
    B. Standards are optional; regulations are not
    C. Regulations and standards are essentially the same
    D. Regulations are mandatory; standards may be seen as guidelines

11. You are the project manager of a project that spans the globe in its implementation. Your team is non-collocated and many of the project team members will need to travel between sites to complete the project work. Which of the following is least relevant to internationalization?

    A. Time zones
    B. Travel requirements
    C. Project schedule
    D. Teleconferences versus videoconferences

12. Which of the following is an example of a deliverable at the end of the requirements gathering phase in a software design project?

    A. Responsibility matrix creation

B. Detail design document
C. Business needs
D. Project team assembled

13. You are the project manager for the ERP Project. Your organization uses a project office. The primary purpose of a project office is to:

A. Support the project managers
B. Support the Project Sponsor
C. Support the project team
D. Identify the stakeholders

14. Which of the following best describes a project deliverable?

A. The resources used by the project to complete the necessary work
B. The resources exported from the project as a result of the project work
C. The end result of a project planning session
D. The tangible good or service created by the project team

15. At what point in a project would a kill point be acceptable?

A. When a project team member is not performing as planned
B. When a project reaches the end of a project phase
C. When a project reaches the end of its budget
D. When a project manager determines the project cannot continue

16. Of the following, which is not an exit criterion?

A. Customer sign-offs
B. Quality metrics
C. Stakeholder expectations
D. Regulatory inspections

17. The compilation of all the phases within a project equates to
    _____.

A. Project life cycle
B. Product life cycle
C. Project completion
D. Project processes

18. Management has asked Nancy to determine if a project concept is valid and can be completed using a reasonable amount of time and finances. Management is asking for which of the following?

A. Kill points

B. Cost and time estimates
C. A project case study
D. A feasibility study

19. Henry, the project manager of the MHB Project, has allowed a subsequent project phase to begin before the predecessor phase is complete. This is an example of which of the following?

    A. Crashing
    B. Fast tracking
    C. Risk management
    D. Tandem scheduling

20. Which of the following describes the early stages of a project?

    A. High costs and high demand for resources
    B. A high demand for change
    C. A high demand for project team time
    D. Low costs and low demand for resources

21. At which point is the risk of failure the least, but the consequence of failure the highest?

    A. During the early stages
    B. During the middle stages
    C. During the final stages
    D. Risk of failure is even across all project phases

22. Tracey is the project manager of the KHG Project. Her organization is a classic functional environment. Her level of authority as a project manager can be best described as which of the following?

    A. Low
    B. Moderate
    C. Balanced
    D. High

23. Project team members are most likely to work full-time on a project in which of the following organizational structures?

    A. Functional
    B. Weak matrix
    C. Strong matrix
    D. Projectized

24. A project with much risk and reward is most likely to be accepted in which of the following?

    A. An entrepreneurial company
    B. A heavily regulated company
    C. A non-profit organization
    D. A community

25. Where can a project manager expect to receive templates?

    A. Commercial databases
    B. The project office
    C. The project sponsor
    D. PMIS

Answers

1. ☑ **A.** The project life cycle is comprised of phases.

☒ **B** is incorrect since milestones may exist within the project plan, but they do not comprise the project life cycle. **C** is wrong because estimates are not directly related to the project life cycle. Choice **D**, activities, comprise the phases within the project life cycle, but not the project life cycle itself.

2. ☑ **B.** The completion of a project phase may also be known as a kill point.

☒ Lessons learned is a collection of information and knowledge gained through an experience, typically a phase, within the project, so **A** is wrong. EVM, earned value management, can happen at different times throughout the project, not just at the end of a project phase, therefore **C** is wrong. Choice **D,** conditional advancement, is a term that is used to describe the conditions that must be present for the work to continue on a project. Conditional advancement, however, does not have to happen only at the end of a project phase.

3. ☑ **B.** External customers are not key stakeholders in this instance as they are not actively involved in an internal project.

☒ **A** and **D** are actively involved in the project processes. Choice **C,** project vendors, is most likely a key stakeholder before an external customer since their ability to perform services and deliver goods may affect project schedule, budget, and completion.

4. ☑ **B.** Communication is the key general management skill a project manager will use the most.

☒ Choices **A, C,** and **D** are necessary, but communication accounts for the majority of a project manager's time.

5. ☑ **C.** Managing has to do with consistently producing key results that are expected by

stakeholders.

⊠ Choices **A** and **D** describe the leadership processes a project manager must possess, therefore they are wrong. Choice **B** is incorrect as it describes the functional management position over project team members.

6. ☑ **C.** Of all the choices presented, answer **C** is most likely not a formal communication.

⊠ Choices A, B, and D are likely to be formal communications within a project.

7. ☑ **A.** Arbitration is a form of negotiation. Technically, it is a form of assisted negotiation.

⊠ **B** is not a negotiation technique. Choice **C,** conferring, is not negotiating, but a process to seek consensus on a decision. **D** is incorrect as scope creep is the process of allowing additional activities into the project scope.

8. ☑ **C.** To influence an organization (in order to get things done), a project manager must understand the explicit and implied organizational structures within an organization.

⊠ Choice **A** is incorrect since the project manager may not even have access to an organizational budget. **B** is incorrect because a proven business case may not map to every scenario when influencing an organization. Finally, **D** is incorrect because positional power may relate to only a small portion of an organization, not to multiple facets of influence.

9. ☑ **A.** Rumors and gossip can sabotage a project. This is an example of cultural achievability.

⊠ **B** and **C** are incorrect since rumors and gossip may happen internally and externally to the project team. **D** may be tempting, but the rumors and gossip could happen outside of the effective planning completed by the project manager and the project team.

10. ☑ **D.** Of all the choices presented, **D** is the best answer since regulations are mandatory requirements.

⊠ Choice **A** is incorrect because it does not accurately describe regulations and standards. Choice **B** is incorrect since regulations are not optional, they are mandatory. **C** is incorrect- standards and regulations are not the same.

11. ☑ **C.** The project schedule is the least relevant when compared to the other factors of internationalization.

⊠ Choices **A, B,** and **D** are all greatly affected by the geographical locale, difference in time zones, and availability of resources in these different countries.

12. ☑ **B.** The detail design document is an output of the requirements gathering phase.

⊠ Choice **A** is incorrect because the responsibility matrix creation is a process, not an output of itself. **C** is incorrect because business needs may prompt the project to begin, not an output of a phase. **D** is also wrong because the project team assembled is part of the project process; it is not an output.

13. ☑ **A.** The project office supports the project manager.

⊠ **B** and **C** are incorrect because the project office does not support the Project Sponsor and

project team. Choice **D** is incorrect because stakeholder objectives may vary from stakeholder to stakeholder.

14. ☑ **D.** Recall that projects are temporary endeavors to create a unique product or service.

    ☒ **A** is incorrect because resources devoted to the project do not constitute a project deliverable. **B** and **C** are incorrect since project work is not a deliverable and there will be multiple planning sessions on most projects. The work of a project often will result in a deliverable, not resources or a work product.

15. ☑ **B.** Kill points are typically at the end of a project phase. A kill point does not mean the project is killed, just that the potential for termination exists.

    ☒ Choices **A, C,** and **D** may appear to be correct, but they do not adequately describe a kill point.

16. ☑ **C.** Exit criterion are activities or evidence that allow a project to move forward. Stakeholder expectations are universal to the entire project, not just to one project phase.

    ☒ Choices **A, B,** and **D** are all examples of activities that can be considered exit criteria.

17. ☑ **A.** The project life cycle is comprised of all of the project phases within a project.

    ☒ **B** describes the life of many projects that create a unique product or service. **C** and **D** are incorrect since they do not accurately describe the project life cycle.

18. ☑ **D.** Management is looking for a feasibility study to determine if it is feasible for a project to exist.

    ☒ Choice **A** is incorrect since kill points are within a project and typically don't prove project feasibility. Cost and time estimates, answer **B,** are not the elements Nancy or management needs at this juncture. Choice **C,** Project Case Study, may seem correct, but **D** is a superior answer since it is the formal name for the report documenting the project's feasibility.

19. ☑ **B.** Fast tracking is the process of allowing successor phases (or activities) to begin before predecessor phases (or activities) are complete.

    ☒ **A** is incorrect because crashing is the process of adding more resources to the project in an attempt to complete the project sooner. **C,** risk management, happens throughout the project, therefore it is wrong. **D** is also wrong because tandem scheduling is not a relevant term in this instance.

20. ☑ **D.** Projects typically have low costs and low demand for resources early in their life cycle.

    ☒ Choices **A, B,** and **C** are incorrect statements in regard to projects.

21. ☑ **C.** As the project moves closer to completion, the likelihood of risk diminishes.

    ☒ Choices **A, B,** and **D** are incorrect in regard to risk assessment in a project.

22. ☑ **A.** Tracey will most likely have a low amount of authority in a functional organization structure.

☒ Choices **B** and **C** are incorrect because they describe the matrix structures. Choice **D** is incorrect since it is relevant to a projectized structure.

23. ☑ **D.** Projectized structures often have project team members assigned to the project on a full-time basis.

☒ Choices **A, B,** and **C** are incorrect since these structures have part-time project teams.

24. ☑ **A.** Projects with much risk and reward are most likely to be accepted within an entrepreneurial organization.

☒ Choices **B, C,** and **D** are typically more adverse to risk and likely wouldn't accept a project with a large amount of risk.

25. ☑ **B.** The project office is the best choice since its role is to support the project manager.

☒ Choice **A,** commercial databases, may be feasible, but it is not the best choice presented. Project Sponsors, Choice **C,** are not typically going to provide the project manager with templates. Choice **D,** project management information systems, may have project templates available, but the project office is the best choice presented.

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1. What is a project process?

    A. The creation of a product or service
    B. The progressive elaboration resulting in a product
    C. A series of actions that bring about a result
    D. A series of actions that allow the project to move from concept to deliverable

2. Within a project there are two distinct types of processes. Which of the following processes is unique to the project?

    A. EVM processes
    B. Project management planning
    C. IPECC
    D. A product-oriented process

3. There are five project management processes that allow projects to move from start to completion. Which one of the following is not one of the project management process groups?

    A. Initiating
    B. Planning
    C. Communicating
    D. Closing

4. Of the following, which is the logical order of the project management processes?

    A. Initiating, planning, controlling, executing, closing
    B. Planning, initiating, controlling, executing, closing
    C. Initiating, planning, executing, controlling, closing
    D. Planning, initiating, executing, closing

5. Which of the project management processes is progressively elaborated?

    A. Planning
    B. Communicating
    C. Contract administration
    D. Closing

6. The ongoing process of project planning is also known as _____.

    A. Constant integration planning
    B. Rolling wave planning
    C. Continuous planning
    D. Phase gates

7. You are the project manager for the AQA Project. You would like to include several of the customers in the project planning sessions. Your project leader would like to know why the stakeholders should be involved-your project team will be determining the best method to reach the project objectives. You should include the stakeholders because _____.

    A. It generates goodwill between the project team and the stakeholders
    B. It allows the stakeholders to see the project manager as the authority of the project
    C. It allows the project team to meet the stakeholders and express their concerns regarding project constraints
    D. It allows the stakeholders to realize the shared ownership of the project

8. You have requested that several of the stakeholders participate in the different phases of the project. Why is this important?

    A. It prevents scope creep.
    B. It allows for scope constraints.
    C. It improves the probability of satisfying the customer requirements.
    D. It allows for effective communications.

9. The information from the planning phase is input into which of the following processes?

    A. Initiating
    B. Controlling
    C. Executing
    D. Closing

10. The information from the initiating phase is input into which of the following processes?

    A. A. Planning
    B. Executing
    C. Controlling
    D. All of the project phases

11. Which process represents an ongoing effort throughout the project?

    A. Lessons learned
    B. Planning
    C. Closing
    D. EVM

12. Which of the following processes happen in the correct order?

A. Scope planning, activity definition, activity duration estimating, cost budgeting
B. Scope planning, resource planning, activity duration estimating, activity sequencing
C. Scope definition, scope planning, activity definition, activity sequencing
D. Scope planning, scope definition, activity definition, activity sequencing

13. Which of the following planning processes is a facilitating process?

A. Activity definition
B. C st budgeting
C. Resource planning
D. Quality planning

14. Which of the following planning processes is concerned with reporting relationships?

A. Organizational planning
B. Resource planning
C. Scope planning
D. Activity definition

15. Of the following, which facilitating process is most concerned with mitigation?

A. Quality planning
B. Risk response planning
C. Procurement planning
D. Risk identification

16. You are the project manager for the FTG Project. This project will affect several lines of business and controversy on the project deliverables already abounds. You have 45 key stakeholders on this project representing internal customers from all areas of your organization. With this many stakeholders, what challenge will be the most difficult for the project's success?

A. Communication
B. Managing stakeholder expectations
C. Managing scope creep
D. Coordinating communications between the project manager, project team, and the project stakeholders

17. Which of the following is representative of a project constraint?

A. A project that must be finished by year's end
B. 45 stakeholders on a long-term project
C. The requirement to complete EVM

D. The requirement to produce a new product

18. You are a project manager of a large construction project. There are many different stakeholders involved in the project and each has their own opinion as to what the project should create. To maintain communication, set objectives, and document all decisions, you can say that larger projects generally require _____.

   A. A larger budget
   B. More detail
   C. Phase gate estimating
   D. A large project team

19. In order to create a network diagram, the project manager needs which of the following?

   A. Activity sequencing
   B. Project sponsor approval of the WBS
   C. The WBS dictionary
   D. A cost baseline

20. Which of the following is considered an output of the cost budgeting process?

   A. Cost estimating
   B. Resource requirements
   C. The risk management plan
   D. The cost baseline

21. Which of the following is considered an output of risk management planning?

   A. Activity lists
   B. WBS
   C. The risk management plan
   D. The scope management plan

22. Which of the following is not an input to schedule development?

   A. The cost baseline
   B. Resource requirements
   C. The risk management plan
   D. The network diagram

23. Frances is the project manager of the JHG Project. This project is very similar to a recent project she completed for another customer. Which planning process will Frances need to finish first to ensure the project is completed successfully?

   A. Solicitation planning

B. Scope definition
C. Activity sequencing
D. Quality planning

24. You are the project manager for the BKL Project. This type of project has never been attempted before by your organization. The stakeholders already have high requirements for the project deliverables and you need to create a change control system. This system should be controlled by which of the following?

    A. A formal change control form
    B. It should be completed by the team
    C. The Change Control Board
    D. It is specific to the organizational structure

25. Complete this statement: Projects fail _____.

    A. At the beginning, not the end
    B. During Initiating, not Closing
    C. Because of inadequate project managers
    D. Because of the project manager

Answers

1. ☑ **C**. A process is a series of actions bringing about a result. Recall that processes exist in projects and in project phases.

   ☒ **A** is incorrect since this describes the project as a whole. **B** is incorrect since it also somewhat describes a phase or project as a whole. **D** is incorrect as it describes the series of processes moving through the project.

2. ☑ **D.** Product-orientated processes are unique to the product the project is creating.

   ☒ EVM processes, choice **A**, are part of project performance measurement. **B,** project management planning, is universal to project management. **C,** IPECC, is the acrostic for the five process groups: initiation, planning, executing, controlling, and closing.

3. ☑ **C.** Communications is an activity that will consume much of the project manager's time, but it is not one of the five process groups.

   ☒ **A, B,** and **D** are incorrect choices as initiating, planning, and closing are three of the five process groups.

4. ☑ **C.** Initiating, planning, controlling, executing, and closing is the correct order of the processes presented.

   ☒ **A** is incorrect since it is not the correct order of the processes. While **A** does list all five of the process groups, it does not list them in the correct order. **B** and **D** are incorrect since they

do not list the processes in the proper order (nor, with D, in their entirety). Remember on the PMP exam you will need to choose the answer that is most correct according to the question presented.

5. ☑ **A.** Planning is an iterative process, which is also progressively elaborated. Throughout the project the project team and the project manager will revisit the planning processes to consider, update, and react to conditions and circumstances within the project.

☒ **B** is incorrect since communicating is not one of the process groups. **C** is incorrect as contract Administration is not a process group. **D** is incorrect since closing is not an iterative process, but a concluding process.

6. ☑ **B.** Rolling wave planning is a description of the planning process in most large projects. It requires the project manager and the project team to revisit the planning process to address the next phase, implementation, or piece of the project.

☒ **A** is incorrect since the planning process is not constant but iterative. **C** is incorrect since there is some pause to the planning processes. **D** is incorrect because phase gates are conditions that allow the projects to move from phase to phase.

7. ☑ **D.** Involving the stakeholders in the planning processes allows for shared ownership of the project.

☒ **A** is incorrect because, although it may generate goodwill between the project team and the stakeholders, this is not the prominent goal of stakeholder involvement. **B** is incorrect because the project charter and the project manager reputation will establish authority more than stakeholder involvement. **C** is incorrect because, though the stakeholders may express their concerns regarding the project constraints, such concerns should be addressed as part of the planning processes, not in addition to them.

8. ☑ **C.** By involving the stakeholders at different aspects of the project, their requirements are more likely to be met. Specifically, scope verification ensures that the stakeholders are seeing that phase deliverables, project progress, quality, and expectations are being met.

☒ **A** is incorrect because the untimely introduction of stakeholders can actually increase scope creep. **B** is incorrect because scope constraints will be evident early in the project, rather than during the implementation of the project work. **D** is incorrect since stakeholder presence does not ensure effective communications. Effective communications will stem from the project manager and the requirements identified and documented in the communications management plan.

9. ☑ **C.** The outputs of the planning phase are a direct input to the executing processes.

☒ **A** is incorrect since initiating processes precede planning processes. **B** is incorrect since conditions in the controlling processes are inputs to the planning processes, not the reverse. **D** is incorrect because planning processes do not serve as a direct input to the closing processes.

10. ☑ **A.** The initiating processes serve as a direct input to the planning processes.

☒ **B, C,** and **D** are incorrect because initiating processes do not directly serve as an input to the executing, controlling, and closing processes.

11. ☑ **B.** Planning is the iterative process evident throughout the project.

☒ **A** is incorrect since lessons learned is not a process group. Closing may be evident at the end of project phases and at the end of the project, but it is not an ongoing effort like the planning process. **D,** EVM, is not an ongoing process.

12. ☑ **D.** The correct order is scope planning, scope definition, activity definition, activity sequencing (Table 3-1 shows the order of these core planning processes).

☒ Choices **B, C,** and **D** do not show the processes in the correct order.

13. ☑ **D.** Quality Planning is the only facilitating process listed.

☒ **A** is incorrect since activity definition is a core process. **B** is incorrect since cost budgeting is also a core process. **C,** resource planning, is also a core process so it too is not a correct answer.

14. ☑ **A.** Organizational planning is the facilitating planning process which defines roles and responsibilities-and the reporting structure within the project.

☒ **B** is incorrect because resource planning is the determination of the required resources to complete the project objectives. **C** is incorrect since it is the determination of what the project will and will not do. **D** is incorrect since activity definition is the definition of the required activities to complete the project work.

15. ☑ **B.** Mitigation is a response to risk.

☒ **A,** quality planning, is incorrect since it focuses on QA and the enforcement of QC. **C** is concerned with procurement management. **D** is incorrect because the identification of risk does not guarantee, or in some instances warrant, mitigation.

16. ☑ **B.** On a project with 45 key stakeholders, the project manager must work to manage stakeholder expectations. Given the impact of the project and the identified controversy, the project manager will need to proceed with caution to ensure the project deliverables meet the required expectations of the stakeholders.

☒ **A** is incorrect because, though communications may be the most time-consuming activity for the project, it is not the most difficult to manage. **C** is incorrect because managing scope creep can be controlled through an effective change control system. Scope creep may be an issue, but it is likely not the largest issue with this number of key stakeholders. **D** is incorrect since the communication between the project manager, the project team, and the stakeholders will be governed by the communications management plan.

17. ☑ **A** is the best choice since it is a time constraint.

☒ Choice **B** is not a constraint, but a project attribute. **C** is incorrect since it describes a project requirement, not a project constraint. **D** is incorrect since the requirement to produce a new product may be the project itself, not the constraint.

18. ☑ **B.** Larger projects require more detail.

☒ **A** is incorrect since larger projects don't always require a larger budget; consider an

Add/Move/Change project to replace a piece of equipment. The project work is shallow, but the piece of equipment may be very expensive. **C** is incorrect because not all large projects will implement phase gate estimating. **D** is incorrect because a large project does not always mandate a large project team; consider a large project with very few resources available to complete the project work.

19. ☑ **A.** The network diagram illustrates the sequence of events within the project.

   ☒ **B** is incorrect as the project sponsor may not approve, or need to approve, the WBS in all projects. **C** is incorrect because the WBS dictionary is not needed to create a network diagram. **D** is also incorrect since the cost baseline is not necessary to create a network diagram.

20. ☑ **D.** The cost budgeting process creates the cost baseline.

   ☒ **A** is incorrect since the cost estimates are an input to the cost budgeting process. **B** is incorrect because resource requirements serve as an input to cost estimating. **C** is incorrect because the risk management plan serves as an input to the cost budgeting process.

21. ☑ **C.** The risk management plan is the output of the risk management planning process.

   ☒ Answers **A** and **B,** Activity Lists and the WBS, are incorrect because they are neither inputs nor outputs of the risk management planning process. Choice **D,** the scope management plan, is incorrect since it is not an output of the risk management planning process.

22. ☑ **A.** The cost baseline is an output of the cost budgeting process; it is not an input to schedule development.

   ☒ **B.** Resource requirements are not an output of schedule development. Choice **C** is incorrect since the risk management plan is an output of the risk management planning process. **D** is incorrect because the network diagram is not an output of schedule development, but an input into schedule development.

23. ☑ **B.** Even though the projects are similar, Frances must still define the project scope.

   ☒ **A** is incorrect since not all projects will need procurement. **C** and **D** are incorrect because scope definition must precede activity sequencing and quality planning.

24. ☑ **C.** A Change Control Board (CCB) will review and approve changes to the project scope. Due to the high requirements of the stakeholders, a CCB can help fend off unneeded changes, and allow the project manager to focus on the project management activities, rather than the potential flood of change requests.

   ☒ **A** and **D,** while correct in theory, are incorrect since they do not answer the question as fully as choice **C** does. Choice **B** is incorrect because the project team should not review and approve changes in this scenario.

25. ☑ **A.** Projects fail at the beginning, not the end. A poor requirements document, inadequate needs assessments, unfulfilled planning, and more early processes can contribute to project failure.

☒ **B, C,** and **D** are not correct choices. Choice **A** is the best answer.

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1. You are a project manager for your organization. Management has asked you to help them determine which projects should be selected for implementation. In a project selection model, the most important factor is which one of the following?

   A. Business needs
   B. Type of constraints
   C. Budget
   D. Schedule

2. On any project, the Lessons Learned document is created by which one of the following?

   A. Customers
   B. Project Sponsor
   C. Project team
   D. Stakeholders

3. Your project is moving ahead of schedule. Management elects to incorporate additional quality testing into the project to improve the quality and acceptability of the project deliverable. This is an example of which one of the following?

   A. Scope creep
   B. Change control
   C. Quality Assurance
   D. Integrated Change Control

4. All of the following are true about change requests except:

   A. They happen while the project work is being done.
   B. They always require additional funding.
   C. They can be written or verbal.
   D. They can be requested by a stakeholder.

5. You are the project manager for a pharmaceutical company. You are currently working on a project for a new drug your company is creating. A recent change in a law governing drug testing will impact your project and change your project scope. The first thing you should do as project manager is:

   A. Create a documented change request.
   B. Proceed as planned, as the project will be grandfathered beyond the new change in the law.
   C. Consult with the project sponsor and the stakeholders.
   D. Stop all project work until the issue is resolved.

6. During project integration activities, a project sponsor's role can best be described as doing which one of the following?

    A. Acting as a sounding board for the project stakeholders
    B. Helping the project manager and stakeholders to resolve any issues ASAP
    C. Deflecting change requests for the project manager
    D. Showing management the project progress and status reports

7. You are the project manager for the HALO Project. You and your project team are preparing the final project plan. Of the following, which one is a project plan development constraint you and your team must consider?

    A. The budget as assigned by management
    B. Project plans from similar projects
    C. Project plans from similar projects that have failed
    D. Interviews with Subject Matter Experts (SMEs) who have experience with the project work in your project plan

8. The primary purpose of your project plan is:

    A. To define the work to be completed to reach the project end date.
    B. To define the work needed in each phase of the project life cycle.
    C. To prevent any changes to the scope.
    D. To provide accurate communication for the project team, project sponsor, and stakeholders.

9. Of the following, which one is an input to project plan development?

    A. Assumptions
    B. Project planning methodology
    C. EVM
    D. Business needs

10. What is the difference between a project baseline and a project plan?

    A. Project plans change as needed, baselines change only at milestones.
    B. Project plans and baselines do not change-they are amended.
    C. Project plans change as needed; baselines are snapshots of the project plan.
    D. Baselines are control tools; project plans are execution tools.

11. Which one of the following is not beneficial to the project manager during the project plan development process?

    A. Gantt Charts
    B. PMIS
    C. EVM

D. Stakeholder knowledge

12. Which one of the following represents the vast majority of a project's budget?

    A. Project planning
    B. Project plan execution
    C. Labor
    D. Cost of goods and services

13. The project plan provides a baseline for several things. Which one of the following does the project plan not provide a baseline for?

    A. Scope
    B. Cost
    C. Schedule
    D. Control

14. Which of the following can best help a project manager during project execution?

    A. Stakeholder analysis
    B. Change control boards
    C. PMIS
    D. Scope verification

15. You are the project manager for your organization. When it comes to Integrated Change Control, you must ensure which one of the following is present?

    A. Supporting detail for the change exists
    B. Approval of the change from the project team
    C. Approval of the change from an SME
    D. Risk assessment for each proposed change

16. The project plan provides what in regard to project changes?

    A. A methodology to approve or decline CCB changes
    B. A guide to all future project decisions
    C. A vision of the project deliverables
    D. A fluid document that may be updated as needed based on the CCB

17. You are the project manager for the DGF Project. This project is to design and implement a new application that will connect to a database server. Management of your company has requested that you create a method to document technical direction on the project and to document any changes or enhancements to the technical attributes of the project deliverable. Which one of the following would satisfy management's request?

A. Configuration management
B. Integrated Change Control
C. Scope Control
D. Change Management Plan

18. Baseline variances, a documented plan to management variances, and a proven methodology to offer corrective actions to the project plan are all part of which process?

A. Change management
B. Change Control System
C. Scope Change Control
D. Integrated Change Control

19. One of the requirements of project management in your organization is to describe your project management approach and methodology in the project plan. You can best accomplish this requirement through which one of the following actions?

A. Establishing a project office
B. Establishing a program office
C. Compiling the management plans from each of the knowledge areas
D. Creating a PMIS and documenting its inputs, tools and techniques, and outputs

20. You have just informed your project team that each team member will be contributing to the Lessons Learned documentation. Your team does not understand this approach and wants to know what the documentation will be used for. Which one of the following best describes the purpose of the Lessons Learned documentation?

A. Offers proof of concept for management
B. Offers historical information for future projects
C. Offers evidence of project progression as reported by the project team
D. Offers input to team member evaluations at the project conclusion

21. Which one of the following is a formal document to manage and control project execution?

A. WBS
B. Project plan
C. Organizational management plan
D. Work Authorization System

22. Configuration management is a process for applying technical and administrative direction and surveillance of the project implementation. Which activity is not included in configuration management?

A. Controlling changes to the project deliverables
B. Scope verification
C. Automatic change request approvals
D. Identification of the functional and physical attributes of the project deliverables

23. Which set of the following tools is part of the project plan execution?

A. PMIS, WBS, EVM
B. General management skills, status review meetings, EVM
C. General management skills, status review meetings, Work Authorization Systems
D. General management skills, status review meetings, EVM

24. EVM is used during the _____.

A. Controlling processes
B. Executing processes
C. Closing processes
D. Entire project

25. You are the project manager for your organization. Management would like you to use a tool that can help you plan, schedule, monitor, and report your findings on your project. This tool is which one of the following?

A. PMIS
B. EVM
C. Status Review Meetings
D. Project team knowledge and skill set

Answers

1. ☑ A. Projects are selected based on business needs first.

☒ B is incorrect, as the project constraints are typically not an issue when a project is selected, the feasibility of a project to operate within the project constraints may be an issue, however. C, the project budget, is incorrect as the project budget is a project constraint. D is incorrect, as the project schedule is also a constraint.

2. ☑ C. The project team contributes to the Lessons Learned document. The project manager also contributes, if not leads, the creation, but this is not a choice in the question.

☒ A is incorrect, as the customers do not contribute to the Lessons Learned document. B is incorrect, as the project sponsor does not contribute to the Lessons Learned document. D is incorrect, as stakeholders, other than the project manager and the project team, do not contribute.

3. ☑ **D**. Additional quality testing will require additional time and resources for the project. This is an example of Integrated Change Control.

☒ **A** is incorrect, as scope creep are small, undocumented changes to the project execution. **B,** change control, is incorrect, as change control falls within Integrated Change Control. **C** is incorrect; as QA is an organization-wide program.

4. ☑ **B**. Change requests do not always require more money. Approved changes may require more funds, but not always. The change request may be denied, so no additional funds are needed for the project.

☒ **A**, **C**, and **D** are all incorrect choices, as these are characteristics of change requests during a project.

5. ☑ **A**. A formal, documented change request is the best course of action for a change request stemming from a law or regulation.

☒ **B** is incorrect, as the law or regulation will likely override any existing project implementation. **C** is incorrect, as the project manager should first document the change through a change request. **D** is incorrect, as all project work shouldn't stop just because of a change request.

6. ☑ **B**. The project sponsor can help the project manager and the stakeholders resolve issues during project integration management.

☒ **A** is incorrect, as the project sponsor is going to have an active rather than passive role in the process of integration management. **C** is incorrect, as the project sponsor will guide changes through the Change Control System. **D** is not a valid choice as the project sponsor is part of management and will do more than report status to other management roles.

7. ☑ **A**. If management has assigned the project constraint of a fixed budget, the project manager and the project team must determine how the project can operate within the constraint.

☒ **B** describes historical information, not a project constraint. **C** also is historical information and not a project constraint, so it too is incorrect. **D** is a valuable tool to use as input into the project plan development, but it is not a constraint.

8. ☑ **D**. Of all the choices presented, **D** is the best choice. Project plans communicate to the project team, the project sponsor, and stakeholders.

☒ **A** and **B** are incorrect, as they do not define the primary purpose of the project plan. **C** is also incorrect; the project plan is intended not to prevent changes, but to communicate.

9. ☑ **A**. Of the choices, assumptions are the only inputs to the project plan development.

☒ **B** is incorrect, as it describes a tool and technique used to develop the project plan. **C** is also a tool and technique to develop the project plan, rather than serve as input to the plan. **D** is incorrect, as it is an input to the planning processes.

10. ☑ **D**. A project baseline serves as a control tool. Project plan execution and work results are

measured against the project baselines.

☒ **A** is incorrect, as baselines are changed with the project plan. **B** is incorrect, as project plans and baselines do change. **C** is also incorrect, as baselines are more than snapshots of the project plans; they are expectations of how the work should be performed.

11. ☑ **A**. Gantt charts are excellent tools to measure and predict the project progress, but are not needed during the project plan development process.

☒ Choices **B**, **C**, and **D** are needed, and expected, during the development of the project plan.

12. ☑ **B**. The project plan execution represents the majority of the project budget.

☒ **A**, project planning, does not reflect the majority of the project budget, although it may contain the most project processes. Choice **C**, labor, does not reflect the biggest project expense in all projects. Choice **D**, cost of goods and services, is incorrect, as the procurement of the goods and services will fall within the project plan execution; in addition, not every project will procure goods and services.

13. ☑ **D**. Control is not a baseline.

☒ Choices **A**, **B**, and **C** describe the project baselines contained within the project plan. Incidentally, **A**, **B**, and **C** are also the attributes of the Project Management Triple Constraint.

14. ☑ **C**. A PMIS can assist the project manager the most during project execution. It does not replace the role of the project manager, but only serves as an assistant.

☒ Choice **A** is incorrect, as stakeholder analysis should have been completed during the project planning processes. Choice **B** also incorrect; CCBs can assist the project manager, but not as much as the control and assistance offered through a PMIS. **D** is incorrect; scope verification is proof of the project work, but not an assistant to the project manager.

15. ☑ **A**. Integrated Change Control requires detail for implementing the change. Without evidence of the need for the change, there is no reason to implement it.

☒ Choice **B** is incorrect, as the project team's approval is not necessary for changes. **C** is incorrect, as a Subject Matter Expert is not always needed to determine the need for change. **D** is also incorrect; while risk assessment is needed for changes, some changes may be discarded based on reasons other than risk.

16. ☑ **B**. The project plan serves as a guide to all future project decisions.

☒ **A** is incorrect: the project plan details more than how changes may be approved or denied-recall that the Change Control Board (CCB) approves and declines changes. **C** is incorrect; the project plan describes how to obtain the project vision, not just what the project vision may be. **D** does describe that the project plan, but not as fully as choice **B**. In addition, the project plan can be updated without changing the project scope.

17. ☑ **A** configuration management is the documentation of the project product, its attributes and changes to the product.

⊠ **B** is incorrect, as Integrated Change Control describes how to incorporate all of the project changes across the knowledge areas. **C** is incorrect, as scope control describes how to manage changes, or potential changes, to the project scope. **D** is also incorrect, as the Change Management Plan does not describe the project product, its features, or changes to the product.

18. ☑ **D**. Integrated Change Control is a system to document changes, their impact, response to changes, and performance deficits.

   ⊠ **A** is incorrect, as change management does not respond to performance deficits as Integrated Change Control does. **B** is also incorrect, as the Change Control System is a documented procedure to manage change requests. **C** is incorrect, as Scope Change Control is the process of managing changes that only affect the work in the project scope.

19. ☑ **C**. The management approach is best described as a compilation of the individual plans in the project plan.

   ⊠ **A** is incorrect, as a project office is not needed to describe the management approach. **B** is incorrect for the same reason as **A**. Choice **D** may be a good practice for project control, but it does not describe management approach and methodologies.

20. ☑ **B**. Lessons Learned is a document that offers historical information.

   ⊠ **A** is incorrect; proof of concept likely comes early in the project's planning processes. **C** is also incorrect, as Lessons Learned may offer evidence of project progression, but it is not the purpose of the Lessons Learned document. **D** is also incorrect; Lessons Learned offers historical information for future projects.

21. ☑ **B**. The project plan is the formal document used to manage and control project execution.

   ⊠ **A** is incorrect-the WBS is an input to the project plan. **C** is incorrect, as the organizational management plan is part of the project plan. **D** is also incorrect; the Work Authorization System allows work to be approved and for new work to begin.

22. ☑ **C**. Hopefully, in no project are there automatic change approvals. **C** is not a part of configuration management.

   ⊠ **A**, **B**, and **D**, all describe the attributes of configuration management.

23. ☑ **C**. General management skills, status review meetings, and Work Authorization Systems are the best tools described here that serve as part of the project plan execution.

   ⊠ **A** is incorrect, as EVM and the WBS are not part of the tools used in the project plan execution. **B** is incorrect, as it includes EVM. **D** is incorrect because it also includes EVM.

24. ☑ **D**. EVM, earned value management, is used throughout the project processes. It is a planning and control tool used to measure performance.

   ⊠ Choices **A**, **B**, and **C** are correct in that EVM is used during these processes, but not as good a choice as **D**.

25. ☑ **A**. The PMIS is the best answer, as it helps the project manager plan, schedule, monitor,

and report findings.

☒ Choice **B** is incorrect, as EVM does not help the project manager schedule. Choice **C** is incorrect; status review meetings do not help the project manager schedule. Choice **D** is incorrect, as the project team's knowledge and skills do not necessarily help the project manager plan, schedule, monitor, and report findings.

CHAPTER FIVE: PROJECT SCOPE MANAGEMENT

1. You are a project manager for your organization. Management has asked you to help them determine which projects should be selected for implementation. In a project selection model, the most important factor is which one of the following?

    A. Business needs
    B. Type of constraints
    C. Budget
    D. Schedule

2. On any project, the Lessons Learned document is created by which one of the following?

    A. Customers
    B. Project Sponsor
    C. Project team
    D. Stakeholders

3. Your project is moving ahead of schedule. Management elects to incorporate additional quality testing into the project to improve the quality and acceptability of the project deliverable. This is an example of which one of the following?

    A. Scope creep
    B. Change control
    C. Quality Assurance
    D. Integrated Change Control

4. All of the following are true about change requests except:

    A. They happen while the project work is being done.
    B. They always require additional funding.
    C. They can be written or verbal.
    D. They can be requested by a stakeholder.

5. You are the project manager for a pharmaceutical company. You are currently working on a project for a new drug your company is creating. A recent change in a law governing drug testing will impact your project and change your project scope. The first thing you should do as project manager is:

    A. Create a documented change request.
    B. Proceed as planned, as the project will be grandfathered beyond the new change in the law.
    C. Consult with the project sponsor and the stakeholders.
    D. Stop all project work until the issue is resolved.

6. During project integration activities, a project sponsor's role can best be described as doing which one of the following?

   A. Acting as a sounding board for the project stakeholders
   B. Helping the project manager and stakeholders to resolve any issues ASAP
   C. Deflecting change requests for the project manager
   D. Showing management the project progress and status reports

7. You are the project manager for the HALO Project. You and your project team are preparing the final project plan. Of the following, which one is a project plan development constraint you and your team must consider?

   A. The budget as assigned by management
   B. Project plans from similar projects
   C. Project plans from similar projects that have failed
   D. Interviews with Subject Matter Experts (SMEs) who have experience with the project work in your project plan

8. The primary purpose of your project plan is:

   A. To define the work to be completed to reach the project end date.
   B. To define the work needed in each phase of the project life cycle.
   C. To prevent any changes to the scope.
   D. To provide accurate communication for the project team, project sponsor, and stakeholders.

9. Of the following, which one is an input to project plan development?

   A. Assumptions
   B. Project planning methodology
   C. EVM
   D. Business needs

10. What is the difference between a project baseline and a project plan?

    A. Project plans change as needed, baselines change only at milestones.
    B. Project plans and baselines do not change-they are amended.
    C. Project plans change as needed; baselines are snapshots of the project plan.
    D. Baselines are control tools; project plans are execution tools.

11. Which one of the following is not beneficial to the project manager during the project plan development process?

    A. Gantt Charts
    B. PMIS
    C. EVM

D. Stakeholder knowledge

12. Which one of the following represents the vast majority of a project's budget?

    A. Project planning
    B. Project plan execution
    C. Labor
    D. Cost of goods and services

13. The project plan provides a baseline for several things. Which one of the following does the project plan not provide a baseline for?

    A. Scope
    B. Cost
    C. Schedule
    D. Control

14. Which of the following can best help a project manager during project execution?

    A. Stakeholder analysis
    B. Change control boards
    C. PMIS
    D. Scope verification

15. You are the project manager for your organization. When it comes to Integrated Change Control, you must ensure which one of the following is present?

    A. Supporting detail for the change exists
    B. Approval of the change from the project team
    C. Approval of the change from an SME
    D. Risk assessment for each proposed change

16. The project plan provides what in regard to project changes?

    A. A methodology to approve or decline CCB changes
    B. A guide to all future project decisions
    C. A vision of the project deliverables
    D. A fluid document that may be updated as needed based on the CCB

17. You are the project manager for the DGF Project. This project is to design and implement a new application that will connect to a database server. Management of your company has requested that you create a method to document technical direction on the project and to document any changes or enhancements to the technical attributes of the project deliverable. Which one of the following would satisfy management's request?

A. Configuration management
B. Integrated Change Control
C. Scope Control
D. Change Management Plan

18. Baseline variances, a documented plan to management variances, and a proven methodology to offer corrective actions to the project plan are all part of which process?

A. Change management
B. Change Control System
C. Scope Change Control
D. Integrated Change Control

19. One of the requirements of project management in your organization is to describe your project management approach and methodology in the project plan. You can best accomplish this requirement through which one of the following actions?

A. Establishing a project office
B. Establishing a program office
C. Compiling the management plans from each of the knowledge areas
D. Creating a PMIS and documenting its inputs, tools and techniques, and outputs

20. You have just informed your project team that each team member will be contributing to the Lessons Learned documentation. Your team does not understand this approach and wants to know what the documentation will be used for. Which one of the following best describes the purpose of the Lessons Learned documentation?

A. Offers proof of concept for management
B. Offers historical information for future projects
C. Offers evidence of project progression as reported by the project team
D. Offers input to team member evaluations at the project conclusion

21. Which one of the following is a formal document to manage and control project execution?

A. WBS
B. Project plan
C. Organizational management plan
D. Work Authorization System

22. Configuration management is a process for applying technical and administrative direction and surveillance of the project implementation. Which activity is not included in configuration management?

A. Controlling changes to the project deliverables
B. Scope verification
C. Automatic change request approvals
D. Identification of the functional and physical attributes of the project deliverables

23. Which set of the following tools is part of the project plan execution?

   A. PMIS, WBS, EVM
   B. General management skills, status review meetings, EVM
   C. General management skills, status review meetings, Work Authorization Systems
   D. General management skills, status review meetings, EVM

24. EVM is used during the _____.

   A. Controlling processes
   B. Executing processes
   C. Closing processes
   D. Entire project

25. You are the project manager for your organization. Management would like you to use a tool that can help you plan, schedule, monitor, and report your findings on your project. This tool is which one of the following?

   A. PMIS
   B. EVM
   C. Status Review Meetings
   D. Project team knowledge and skill set

Answers

1. ☑ **A**. Projects are selected based on business needs first.

   ☒ **B** is incorrect, as the project constraints are typically not an issue when a project is selected, the feasibility of a project to operate within the project constraints may be an issue, however. **C,** the project budget, is incorrect as the project budget is a project constraint. **D** is incorrect, as the project schedule is also a constraint.

2. ☑ **C**. The project team contributes to the Lessons Learned document. The project manager also contributes, if not leads, the creation, but this is not a choice in the question.

   ☒ **A** is incorrect, as the customers do not contribute to the Lessons Learned document. **B** is incorrect, as the project sponsor does not contribute to the Lessons Learned document. **D** is incorrect, as stakeholders, other than the project manager and the project team, do not contribute.

3. ☑ **D**. Additional quality testing will require additional time and resources for the project. This is an example of Integrated Change Control.

    ☒ **A** is incorrect, as scope creep are small, undocumented changes to the project execution. **B,** change control, is incorrect, as change control falls within Integrated Change Control. **C** is incorrect; as QA is an organization-wide program.

4. ☑ **B**. Change requests do not always require more money. Approved changes may require more funds, but not always. The change request may be denied, so no additional funds are needed for the project.

    ☒ **A**, **C**, and **D** are all incorrect choices, as these are characteristics of change requests during a project.

5. ☑ **A**. A formal, documented change request is the best course of action for a change request stemming from a law or regulation.

    ☒ **B** is incorrect, as the law or regulation will likely override any existing project implementation. **C** is incorrect, as the project manager should first document the change through a change request. **D** is incorrect, as all project work shouldn't stop just because of a change request.

6. ☑ **B**. The project sponsor can help the project manager and the stakeholders resolve issues during project integration management.

    ☒ **A** is incorrect, as the project sponsor is going to have an active rather than passive role in the process of integration management. **C** is incorrect, as the project sponsor will guide changes through the Change Control System. **D** is not a valid choice as the project sponsor is part of management and will do more than report status to other management roles.

7. ☑ **A**. If management has assigned the project constraint of a fixed budget, the project manager and the project team must determine how the project can operate within the constraint.

    ☒ **B** describes historical information, not a project constraint. **C** also is historical information and not a project constraint, so it too is incorrect. **D** is a valuable tool to use as input into the project plan development, but it is not a constraint.

8. ☑ **D**. Of all the choices presented, **D** is the best choice. Project plans communicate to the project team, the project sponsor, and stakeholders.

    ☒ **A** and **B** are incorrect, as they do not define the primary purpose of the project plan. **C** is also incorrect; the project plan is intended not to prevent changes, but to communicate.

9. ☑ **A**. Of the choices, assumptions are the only inputs to the project plan development.

    ☒ **B** is incorrect, as it describes a tool and technique used to develop the project plan. **C** is also a tool and technique to develop the project plan, rather than serve as input to the plan. **D** is incorrect, as it is an input to the planning processes.

10. ☑ **D**. A project baseline serves as a control tool. Project plan execution and work results are

measured against the project baselines.

☒ **A** is incorrect, as baselines are changed with the project plan. **B** is incorrect, as project plans and baselines do change. **C** is also incorrect, as baselines are more than snapshots of the project plans; they are expectations of how the work should be performed.

11. ☑ **A**. Gantt charts are excellent tools to measure and predict the project progress, but are not needed during the project plan development process.

☒ Choices **B**, **C**, and **D** are needed, and expected, during the development of the project plan.

12. ☑ **B**. The project plan execution represents the majority of the project budget.

☒ **A**, project planning, does not reflect the majority of the project budget, although it may contain the most project processes. Choice **C**, labor, does not reflect the biggest project expense in all projects. Choice **D**, cost of goods and services, is incorrect, as the procurement of the goods and services will fall within the project plan execution; in addition, not every project will procure goods and services.

13. ☑ **D**. Control is not a baseline.

☒ Choices **A**, **B**, and **C** describe the project baselines contained within the project plan. Incidentally, **A**, **B**, and **C** are also the attributes of the Project Management Triple Constraint.

14. ☑ **C**. A PMIS can assist the project manager the most during project execution. It does not replace the role of the project manager, but only serves as an assistant.

☒ Choice **A** is incorrect, as stakeholder analysis should have been completed during the project planning processes. Choice **B** also incorrect; CCBs can assist the project manager, but not as much as the control and assistance offered through a PMIS. **D** is incorrect; scope verification is proof of the project work, but not an assistant to the project manager.

15. ☑ **A**. Integrated Change Control requires detail for implementing the change. Without evidence of the need for the change, there is no reason to implement it.

☒ Choice **B** is incorrect, as the project team's approval is not necessary for changes. **C** is incorrect, as a Subject Matter Expert is not always needed to determine the need for change. **D** is also incorrect; while risk assessment is needed for changes, some changes may be discarded based on reasons other than risk.

16. ☑ **B**. The project plan serves as a guide to all future project decisions.

☒ **A** is incorrect: the project plan details more than how changes may be approved or denied-recall that the Change Control Board (CCB) approves and declines changes. **C** is incorrect; the project plan describes how to obtain the project vision, not just what the project vision may be. **D** does describe that the project plan, but not as fully as choice **B**. In addition, the project plan can be updated without changing the project scope.

17. ☑ **A** configuration management is the documentation of the project product, its attributes and changes to the product.

☒ **B** is incorrect, as Integrated Change Control describes how to incorporate all of the project changes across the knowledge areas. **C** is incorrect, as scope control describes how to manage changes, or potential changes, to the project scope. **D** is also incorrect, as the Change Management Plan does not describe the project product, its features, or changes to the product.

18. ☑ **D**. Integrated Change Control is a system to document changes, their impact, response to changes, and performance deficits.

   ☒ **A** is incorrect, as change management does not respond to performance deficits as Integrated Change Control does. **B** is also incorrect, as the Change Control System is a documented procedure to manage change requests. **C** is incorrect, as Scope Change Control is the process of managing changes that only affect the work in the project scope.

19. ☑ **C**. The management approach is best described as a compilation of the individual plans in the project plan.

   ☒ **A** is incorrect, as a project office is not needed to describe the management approach. **B** is incorrect for the same reason as **A**. Choice **D** may be a good practice for project control, but it does not describe management approach and methodologies.

20. ☑ **B**. Lessons Learned is a document that offers historical information.

   ☒ **A** is incorrect; proof of concept likely comes early in the project's planning processes. **C** is also incorrect, as Lessons Learned may offer evidence of project progression, but it is not the purpose of the Lessons Learned document. **D** is also incorrect; Lessons Learned offers historical information for future projects.

21. ☑ **B**. The project plan is the formal document used to manage and control project execution.

   ☒ **A** is incorrect-the WBS is an input to the project plan. **C** is incorrect, as the organizational management plan is part of the project plan. **D** is also incorrect; the Work Authorization System allows work to be approved and for new work to begin.

22. ☑ **C**. Hopefully, in no project are there automatic change approvals. **C** is not a part of configuration management.

   ☒ **A**, **B**, and **D**, all describe the attributes of configuration management.

23. ☑ **C**. General management skills, status review meetings, and Work Authorization Systems are the best tools described here that serve as part of the project plan execution.

   ☒ **A** is incorrect, as EVM and the WBS are not part of the tools used in the project plan execution. **B** is incorrect, as it includes EVM. **D** is incorrect because it also includes EVM.

24. ☑ **D**. EVM, earned value management, is used throughout the project processes. It is a planning and control tool used to measure performance.

   ☒ Choices **A**, **B**, and **C** are correct in that EVM is used during these processes, but not as good a choice as **D**.

25. ☑ **A**. The PMIS is the best answer, as it helps the project manager plan, schedule, monitor,

and report findings.

⊠ Choice **B** is incorrect, as EVM does not help the project manager schedule. Choice **C** is incorrect; status review meetings do not help the project manager schedule. Choice **D** is incorrect, as the project team's knowledge and skills do not necessarily help the project manager plan, schedule, monitor, and report findings.

1. You are the project manager of the JHG Project. This project has 32 stakeholders and will require implementation activities in North and South America. You have been requested to provide a duration estimate for the project. Of the following, which will offer the best level of detail in your estimate?

   A. WBS
   B. Order of magnitude
   C. Requirements document
   D. Stakeholder analysis

2. Michael is the project manager of the 78GH Project. This project requires several members of the project team to complete a certification class for another project the week of November 2. This class causes some of the project activities on Michael's activities to be delayed from his target schedule. This is an example of which of the following?

   A. Hard logic
   B. External dependencies
   C. Soft logic
   D. Conflict of interest

3. Which of the following best describes GERT?

   A. PDM
   B. Network template
   C. Conditional diagramming methods
   D. ADM

4. As the project manager for the DFK Project, you are reviewing your project's network diagram (as shown in the following illustration):

Given the diagram, what is the relationship between tasks F and G?

    A. FS
    B. SS
    C. FF
    D. SF

5. You are the project manager for the LLL Project. Steven, a project team member, is confused about network diagrams. Specifically, he wants to know what the critical path is in a network diagram. Your answer is which one of the following?

    A. The critical path is the network that hosts the activities most critical to the project success.
    B. The critical path is the path with the longest duration.
    C. The critical path is always one path that cannot be delayed or the entire project will be delayed.
    D. The critical path is the path from start to completion with no deviation from the project plan.

6. What is the difference between PDM and ADM?

    A. ADM places activities on arrows; PDM places activities on nodes.
    B. ADM is also known as AOA, while PDM is also known as GERT.
    C. ADM hosts activities on nodes, while PDM hosts activities on arrows.
    D. PDM can have two types of relationships between tasks, while ADM can have only type of relationship between tasks.

7. The purpose of using GERT is which of the following?

    A. Allows for float to be distributed across all paths to completion
    B. Allows for loops and conditional branches
    C. Requires all paths to completion to intersect at quality audits
    D. Requires all paths to completion to intersect at scope verification checkpoints

8. Where is a project manager most likely to experience a subnet?

    A. WBS
    B. Kill points
    C. GERT charts
    D. Network template

9. You are the project manager for the POL Project. This project will use PERT to calculate the estimates for activity duration. For activity D, you have the following information: P=9, O=4, M=5. What is the result of PERT?

A. 18 weeks
B. 5.5 weeks
C. 33.33 days
D. 3 weeks

10. You are the project manager for the YKL Project. This project will impact several lines of business at completion. Each milestone in the project is scheduled to end so the work does not impact current business cycles. This is an example of which one of the following?

   A. Constraint
   B. Expert judgment
   C. WBS scheduling
   D. Soft logic

11. You are the project manager for the MNB Project. You and your project team are about to enter into the activity duration estimating process. Which of the following will not be helpful in your meeting?

   A. Constraints
   B. Assumptions
   C. The project charter
   D. Identified risks

12. You are the project manager for a new training program at your customer's site. This program will require each of the customer's employees to attend the half-day class and complete an assessment exam. You will be completing the training at the customer's facility, and will need a trainer for the duration of the training, which is six months. This is an example of which of the following?

   A. Resource requirements
   B. Assumption
   C. Cost constraint
   D. A human resource issue

13. You are the project manager for a construction company. Your firm has been contracted to complete the drilling of a well for a new cabin in Arkansas. The specification of the well is documented, but your company has little experience in well drilling in Arkansas. The stakeholder is concerned your time estimates are not accurate as the soil and rock in Arkansas are much different than the soil in your home state. Which one of the following can you use to ensure your project estimates are accurate?

   A. Order of magnitude
   B. Commercial duration estimating databases
   C. Local contractors

D. Soil samplings from the Arkansas government

14. You are the project manager for your organization. You and your project team are in conflict on the amount of time allotted to complete certain activities. Several of the team members are wanting to bloat the time associated with activities to ensure they will have enough time to complete their tasks should something go awry. The law of economics that these tasks may suffer from is which one of the following?

    A. Parkinson's Law
    B. The law of diminishing returns
    C. Hertzberg's theory of motivation
    D. Oligopoly

15. You are the project manager for your organization. You and your project team are in conflict on the amount time allotted to complete certain activities. Several of the team members are wanting to bloat the time associated with activities to ensure they will have enough time to complete their tasks should something go awry. Instead of overestimating their project activities, the project team should use which of the following?

    A. Capital reserve
    B. Contingency plans
    C. Contingency reserve
    D. Assumptions of plus or minus a percentage

16. Which of the following is not an output from the activity duration estimating process?

    A. WBS
    B. Activity list updates
    C. Basis of estimates
    D. Duration estimates

17. You are the project manager for the 987 Project. Should this project run over schedule, it will cost your organization $35,000 per day in lost sales. With four months to completion, you realize the project is running late. You decide, with management's approval, to add more project team members to the project plan to complete the work on time. This is an example of which of the following?

    A. Crashing
    B. Fast tracking
    C. Expert judgment
    D. Cost benefit analysis

18. You are the project manager for the 987 Project. Should this project run over schedule, it will cost your organization $35,000 per day in lost sales. With four months to completion, you realize the project is running late. You decide, with

management's approval, to change the relationship between several of the work packages so they begin in tandem rather than sequentially. This is an example of which one of the following?

    A. Crashing
    B. Fast tracking
    C. Expert judgment
    D. Cost benefit analysis

19. Chris, a project manager for his company, is explaining the difference between a Gantt chart and a milestone chart. Which of the following best describes a Gantt chart?

    A. A Gantt chart depicts what was planned against what actually occurred.
    B. A Gantt chart depicts the work in the project against the work that has been completed.
    C. A Gantt chart depicts the work in the project against a calendar.
    D. A Gantt chart depicts the work in the project against each resource's calendar.

20. Which of the following is a correct attribute of the critical path?

    A. It determines the earliest completion date
    B. It has the smallest amount of float
    C. It has the most activities in the PND
    D. It is the path with the most expensive project activities

21. You are the project manager for a construction project. Your foreman informs you that, due to the humidity, the concrete will need to cure for an additional 24 hours before the framing can begin. To accommodate the requirement, you add _____ time to the framing activity.

    A. Lead
    B. Lag
    C. Delay
    D. Slack

22. A heuristic is a _____?

    A. Rule of thumb
    B. Regulation
    C. A regulation internal to an organization
    D. A best method of implementing an activity

23. You are the project manager for a project with the following network diagram.

Studying the diagram, which path is the critical path?

    A. ABCD
    B. EBCD
    C. EFH
    D. EGH

24. Bertha is the project manager for the HAR Project. The project is behind schedule and Bertha has elected, with management's approval, to crash the critical path. This process adds more what? (Choose the best answer.)

    A. Cost
    B. Time
    C. Risk
    D. Documentation

25. Bertha is the project manager for the HAR Project. The project is behind schedule and Bertha has elected, with management's approval, to fast track the critical path. This process adds more what? (Choose the best answer.)

    A. Cost
    B. Time
    C. Risk
    D. Documentation

Answers

1. ☑ A. The WBS is the best choice for this scenario.

    ☒ B is incorrect because the order of magnitude provides little information for accurate estimating. C, while tempting, is incorrect because the requirements document lists the high-level deliverable, while the WBS provides more detail. D is incorrect because stakeholder analysis does not provide enough information to accurately predict when the project will end.

2. ☑ B. Before the work can begin, the certification class must be completed.

☒　**A** is incorrect; hard logic is the mandatory sequencing of particular events. **C** is incorrect because there is no preferential logic. **D** is incorrect because it does not apply to this scenario.

3. ☑ **C.** GERT, Graphical Evaluation and Review Technique, allows for conditional advancement.

☒ **A, B,** and **C** are all incorrect because these describe other network diagrams.

4. ☑ **A.** G is slated to start immediately after F, so this is a finish-to-start relationship. In other words, F must finish so G may start.

☒ **B, C,** and **D** are all incorrect relationships.

5. ☑ **B.** The critical path is always the path with the longest duration.

☒ **A** is incorrect because the critical path hosts the activities, not a network. **C** is a distracter and is incorrect because there can be more than one critical path in a network diagram. **D** is incorrect because it does not adequately describe the critical path.

6. ☑ **A.** ADM, the Arrow Diagramming Method, is also known as 'Activity-on-Arrow,' while PDM, the Precedence Diagramming Method, places activities on nodes. PDM is also known as 'Activity-on-Nodes.'

☒ **B** and **C** are incorrect because they do not accurately describe ADM and PDM. **D** is incorrect because PDM is allowed four different relationship types: FS, SF, FF, and SF.

7. ☑ **B.** GERT allows for branching and loopbacks.

☒ **A, C,** and **D** are all incorrect because they do not accurately describe GERT.

8. ☑ **D.** Subnets are often included in network templates to summarize common activities in a project.

☒ **A, B,** and **C** do not use subnets.

9. ☑ **B.** The formula for pert is (P+4M+O)/6. In this instance, the outcome is 5.5 weeks.

☒ **A, C,** and **D** are incorrect calculations, so they are incorrect.

10. ☑ **D.** Soft logic allows the project manager to make decisions based on conditions outside of the project, best practices, or guidelines.

☒ **A** is incorrect because this is not an example of constraints since the project manager is not required to use soft logic. **B** and **C** are incorrect; they do not describe the scenario fully.

11. ☑ **C.** The project charter is not an input to the activity duration estimating process.

☒ Choices **A, B,** and **D** are all correct choices because they are inputs to activity duration estimating.

12. ☑ **A.** The trainer is required for the project for six months.

☒ **B, C,** and **D** are incorrect because they do not describe the resource requirement of the trainer on the project.

13. ☑ **B.** Commercial duration estimating databases are valid resources to confirm or base time estimates upon.

☒ **A** is incorrect because order of magnitude offers very little detail on time estimates. **C** is incorrect because local contractors are not the best source for confirming time estimates; the question does not define if the contractors are local to Arkansas or to your home state. **D** is incorrect because commercial duration estimating databases are much more reliable in this scenario.

14. ☑ **A.** Parkinson's Law states that work will expand to fulfill the time allotted to it.

☒ Bloated tasks will take all of the time allotted. Management reserve should be used instead. **B** is incorrect because this describes the relationship between effort, duration, and the maximum yield. **C** is incorrect because it describes personalities and worker motivation. **D** is incorrect because an oligopoly is a procurement issue where there are few vendors available to choose from; the vendors may seemingly have checks and balances with each other.

15. ☑ **C.** Rather than bloat activities, projects should use contingency reserve. Contingency reserve is a portion of the project schedule allotted for time overruns on activities.

☒ **A** is incorrect because it does not describe the scenario. **B** is incorrect because contingency plans are a response to risk situations. **D** is incorrect because it describes a range of variance.

16. ☑ **A.** The WBS is not an output of activity duration estimating.

☒ Choices **B, C,** and **D** are incorrect because they are outputs of activity duration estimating.

17. ☑ **A.** When more resources are added to a project to complete the work on time, this is called crashing.

☒ **B** is incorrect; fast tracking is the process of changing the relationship between activities to allow tasks to overlap. **C** is incorrect because expert judgment is not used in this scenario. **D** is incorrect; cost benefit analysis may be part of the process to decide the value of adding more workers to the schedule, but it is not the process described.

18. ☑ **B.** Fast tracking allows activities to operate in tandem with each other rather than sequentially.

☒ **A** is incorrect; when more resources are added to a project to complete the work on time, this is called crashing. **C** is incorrect, because expert judgment is not used in this scenario. **D** is incorrect; cost benefit analysis may be part of the process to decide the value of fast tracking the schedule, but it is not the process described.

19. ☑ **C.** A Gantt chart is a bar chart that represents the duration of activities against a calendar. The length of the bars represent the length of activities while the order of the bars represent the order of activities in the project.

☒ **A** and **B** are incorrect because this describes a tracking Gantt. **D** is incorrect because this does not describe a Gantt chart.

20. ☑ **A.** Of all the choices presented, **A** is the best description of the critical path. The critical path is the path with the longest duration. There can be instances, however, when the project's expected end date is well beyond the duration of the scheduled work. In such cases, the critical path is considered the path with the least amount of float.

☒ Choices **B, C,** and **D** are incorrect because they are false descriptions of the critical path. The critical path has no float, has the longest duration, and does not necessarily have the most expensive activities.

21. ☑ **B.** You will add lag time to the framing activity. Lag is waiting time.

☒ **A** is incorrect; lead time allows activities to overlap. **C** is not the correct choice. **D** is also incorrect because slack is the amount of time a task can be delayed without delaying the scheduled start date of dependent activities.

22. ☑ **A.** Heuristic is simply a rule of thumb.

☒ **B, C,** and **D** are all incorrect; these choices do not describe heuristics.

23. ☑ **B** is the critical path because EBCD is the longest path to completion at 18 days.

☒ **A, C,** and **D** are incorrect because these paths have float.

24. ☑ **A.** Crashing involves adding resources, which typically increases cost.

☒ **B** is incorrect because crashing is an effort to reduce time, not add it. **C** may be correct, but it is not the best answer. **D** is incorrect.

25. ☑ **C.** Fast tracking adds risk as tasks are allowed to overlap.

☒ **A** may be correct in some instances, but it is not the best choice here. **B** is incorrect because Bertha wants to remove time, not add it. **D** is also incorrect.

1. Which one of the following best describes analogous estimating?

    A. Regression analysis
    B. Bottom-up estimating
    C. Less accurate
    D. More accurate

2. You are the project manager for GHG Project. You are about to create the cost estimates for the project. Which input to this process will help you the most?

    A. Parametric modeling
    B. WBS
    C. Project scope
    D. Requirements document

3. You are the project manager for the JKH Project. You have elected to use parametric modeling in your cost estimating for the project. Which one of the following is an example of parametric modeling?

    A. $750 per ton
    B. Historical information from a similar project
    C. Estimates built bottom-up based on the WBS
    D. Estimates based on top-down budgeting

4. You are the project manager for a new technology implementation project. Management has requested that your estimates be as exact as possible. Which one of the following methods of estimating will provide the most accurate estimate?

    A. Top-down estimating
    B. Top-down budgeting
    C. Bottom-up estimating
    D. Parametric modeling

5. Your company has been hired to install the tile in 1,000 hotel rooms. All rooms will be identical in nature and will require the same amount of materials. You calculate the time to install the tile in each hotel room as six hours. The cost for labor for each room is calculated at $700. Your Project Sponsor disagrees with your labor estimate. Why?

    A. You haven't completed one hotel room yet so you don't know how long the work will actually take.
    B. You have not factored in all of the effort applied to the work.
    C. You have not considered the law of diminishing returns.

D. You have not considered the learning curve.

6. You are the project manager for a construction project to build 17 cabins. All of the cabins will be identical in nature. The contract for the project is set at a fixed cost, the incentive being the faster the project work is completed, the more the profitable the job. Management has requested that you study the work method to determine a faster, less costly, and better method to complete the project. This is an example of which one of the following?

    A. Time constraint
    B. Schedule constraint
    C. Value analysis
    D. Learning curve

7. You are the project manager for a technical implementation project. The customer has requested that you factor in the after-the-project costs, such as maintenance and service. This is an example of which one of the following?

    A. Life cycle costs
    B. Scope creep
    C. Project spin off
    D. Operations

8. Which one of the following provides the least accurate in estimating?

    A. Rough order of magnitude
    B. Budget estimate
    C. Definitive estimate
    D. WBS estimate

9. Which one of the following is true?

    A. The cost management plan controls how change management affects the BAC.
    B. The cost management plan controls how cost variances will be managed.
    C. The cost management plan controls how the project manager may update the cost estimates.
    D. The cost management plan controls how the BAC may be adjusted.

10. You have just started a project for a manufacturer. Project team members report they are 30 percent done with the project. You agree with their completion status but do not change any of the progress in your report to the customer. This is an example of which one of the following?

    A. 50/50 rule
    B. 0/100 rule

C. Percent Complete Rule
D. Poor project management

11. You and your project team are about to enter a meeting to determine project costs. You have elected to use bottom-up estimating and will base your estimates on the WBS. Which one of the following is not an attribute of bottom-up estimating?

A. People doing the work create the estimates.
B. Creates a more accurate estimate.
C. More expensive to do than other methods.
D. Less expensive to do than other methods.

12. What is the present value if the organization expects to make $100,000 four years from now and the annual interest rate is six percent?

A. $100,000
B. $58,000
C. $25,000
D. Zero

13. You are the project manager for the construction of a new hotel. Before you begin the cost budgeting process, what is needed?

A. Costs estimates and project schedule
B. Cost estimates and supporting detail
C. EAC and BAC
D. Parametric model used to arrive at the costs submitted

14. You are the project manager of the MNJ Project. Your project is falling behind schedule and you have already spent $130,000 of your $150,000 budget. What do you call the $130,000?

A. Planned value
B. Present value
C. Sunk costs
D. Capital expenditure

15. You are the project manager of the JHD Project. Your project will cost your organization $250,000 to complete over the next eight months. Once the project is completed, the deliverables will begin earning the company $3,500 per month. The time to recover the costs of the project is which one of the following?

A. Not enough information to know
B. Eight months
C. 72 months

D. 5 years

16. You are the project manager for the consulting company. Your company has two possible projects to manage, but they can only choose one. Project KJH is worth $17,000, while Project ADS is worth $22,000. Management elects to choose Project ADS. The opportunity cost of this choice is which one of the following?

   A. $5,000
   B. $17,000
   C. $22,000
   D. Zero, as project ADS is worth more than Project KJH

17. You are the project manager for the CSR Training Project, and 21,000 customer service reps are invited to attend the training session. Attendance is optional. You have calculated the costs of the training facility, but the workbook expense depends on how many students register to the class. For every 5,000 workbooks created the cost is reduced a percentage of the original printing cost. The workbook expense is an example of which one of the following?

   A. Fixed costs
   B. Parametric costs
   C. Variable costs
   D. Indirect costs

18. You are the project manager of a construction project scheduled to last 24 months. You have elected to rent a piece of equipment for the duration of a project, even though you will need the equipment only periodically throughout the project. The costs of the equipment rental per month are $890. This is an example of _____.

   A. Fixed costs
   B. Parametric costs
   C. Variable costs
   D. Indirect costs

19. You are the project manager for the Hardware Inventory Project. You have a piece of equipment that was purchased recently for $10,000 and is expected to last five years in production. At the end of the five years the expected worth of the equipment is $1,000. Using straight-line deprecation, what is the amount that can be written off each year?

   A. Zero
   B. $1,000
   C. $1,800
   D. $2,000

20. You are the project manager of the LKG Project. The project has a budget of $290,000 and is expected to last three years. The project is now ten percent complete and is on schedule. What is the BAC?

    A. $29,000
    B. $290,000
    C. $96,666
    D. $9,666

21. Your project has a budget of $130,000 and is expected to last ten months, with the work and budget spread evenly across all months. The project is now in month three, the work is on schedule, but you have spent $65,000 of the project budget. What is your variance?

    A. $65,000
    B. $39,000
    C. $26,000
    D. $64,999

22. You are the project manager of the Carpet Installation Project for a new building. Your BAC is $600,000. You are now 40 percent done with the project, though your plan called for you to be 45 percent done with the work at this time. What is your earned value?

    A. $240,000
    B. $270,000
    C. $30,000
    D. –$30,000

23. You are the project manager of the Carpet Installation Project for a new building. Your BAC is $600,000. You have spent $270,000 of your budget. You are now 40 percent done with the project, though your plan called for you to be 45 percent done with the work at this time. What is your CPI?

    A. 100
    B. 89
    C. .89
    D. .79

24. You are the project manager for the Facility Installation Project. The project calls for 1500 units to be installed into a new baseball stadium. Your team wants to know why you have not assigned the same amount of time for the last 800 units as you had for the first five hundred units. You tell them it is because of the learning curve. Which one of the following best describes this theory?

    A. Production increases as workers become more efficient with the installation

procedure.

    B. Efficiency increases as workers become more familiar with the installation procedure.

    C. Costs decrease as workers complete more of the installation procedure.

    D. Time decreases as workers complete more of the installation procedure in the final phases of a project.

25. Of the following, which one is the most reliable source of information for estimating project costs?

    A. Historical information from a recently completed project

    B. An SME's opinion

    C. Recollections of team members that have worked on similar projects

    D. Vendor's white papers

Answers

1. ☑ **C.** Analogous estimating is less accurate than other estimating methods.

☒ **A** is incorrect, as regression analysis is a type of parametric modeling. **B** is incorrect, as bottom-up estimating starts with zero and adds up the project costs. **D** is incorrect, as analogous estimating is not more accurate.

2. ☑ **B.** The WBS is the input that can help you the most with the cost estimates.

☒ **A** is incorrect, as parametric modeling is a form of estimating, not an input. **C** is incorrect, as the project scope is not an input to the estimating process. **D** is incorrect, as the requirements document is also not an input to the estimating process.

3. ☑ **A** is correct; $750 per ton is an example of parametric modeling.

☒ **B** is incorrect, as historical information is analogous, not parametric. **C** and **D** are incorrect, as these do not describe parametric modeling.

4. ☑ **C.** Bottom-up estimating provides the most accurate estimates. The project manager starts at zero, the bottom, and accounts for each cost within the project.

☒ **A**, **B**, and **D** are all incorrect as they do not reflect the most accurate method to create an estimate.

5. ☑ **D** is the best choice. As the project team completes more and more units, the time to complete a hotel room should take less and less time.

☒ Choices **A**, **B**, and **C** are incorrect as they do not answer the question as fully as answer **D**.

6. ☑ **C.** Value analysis is a systematic approach to find less costly ways to complete the same work.

☒ **A** and **B** are not correct, as this situation does not describe a specific time or cost

constraint. **D** is incorrect, as the learning curve happens as the project team completes the work. Value analysis is a study of a process to complete the work faster and more affordably.

7. ☑ **A.** The after-project costs are known as the life cycle costs.

☒ Choices **B** and **C** are incorrect, though tempting, because they do not describe the process of calculating the ongoing expenses of the product the project is creating. **D** is incorrect; operations do not fully describe the expenses unique to the product.

8. ☑ **A.** The rough order of magnitude is the least accurate approach, as it may vary from –25 percent to +75 percent.

☒ Choices **B** and **C** are more accurate estimates than the rough order of magnitude. Choice **D** is not a valid answer for this question.

9. ☑ **B.** The cost management plan controls how cost variances will be managed.

☒ Choices **A**, **C**, and **D** are incorrect descriptions of the cost management plan.

10. ☑ **B.** This is an example of the 0/100 rule. This completion method allows for zero percent credit on an activity until it is 100 percent complete.

☒ Choice **A** allows for 50 percent completion when the work begins and 50 percent when the work is completed. Choices **C** and **D** are incorrect responses, as they do not describe the scenario.

11. ☑ **D.** Using bottom-up estimating is not less expensive to do.

☒ **A**, **B**, and **C** are not correct choices, as these are attributes of a bottom-up estimating process.

12. ☑ **B.** The present value of $100,000 four years from now can be calculated through this formula: Present Value = $FV/(1+R)^n$. FV is the future value, R is the interest rate, and n is the number of time periods.

☒ Choices **A**, **C**, and **D** are all incorrect answers, as they do not reflect the present value.

13. ☑ **A.** Cost estimates and the project schedule are inputs to the cost budgeting process.

☒ Choices **B**, **C**, and **D** are all incorrect as they are not inputs to cost budgeting.

14. ☑ **C.** Sunk costs are monies that have been spent.

☒ **A** is incorrect, as planned value is the amount the project should be worth at this point in the schedule. **B** is incorrect; present value is the current value of future monies. **D** is incorrect; a capital expenditure is money spent to purchase a long-term asset, such as a building.

15. ☑ **C.** The time to recoup the monies from the project is 72 months. This is calculated by dividing the ROI of $3,500 per month into the project cost.

☒ **A** is an incorrect answer. **B** is incorrect; eight months is the amount of time left in the project schedule. **D**, five years, is also incorrect.

16. ☑ **B.** The opportunity cost is the amount of the project that was not chosen.

☒ **A** is incorrect; $5,000 is the difference between the two projects, it is not the opportunity cost. **C** is incorrect, as $22,000 is the amount of the project that was selected. **D** is an incorrect answer.

17. ☑ **C.** This is an example of variable costs. The more students that register to take the class the more the cost of the books will be.

☒ **A** is incorrect, as the cost of the book varies depending on the number of students that register for the class. **B** is incorrect, as the cost of each book diminishes as more books are created. A parametric cost would remain the same regardless of how many books were created. **D** is not correct, as this is not an example of an indirect cost.

18. ☑ **A.** This is a fixed cost expense of $890 per month—regardless of how often the piece of equipment is used.

☒ **B** is incorrect, as a parametric cost is a value used to calculate cost per use, cost per metric ton, or cost per unit. While it may appear **B** is a correct choice, there is no historical information mentioned to base the parametric model on. **C** is incorrect, as the cost does not vary within the project. **D** is also incorrect; this is a cost attributed directly to the project work.

19. ☑ **C.** The straight-line depreciation takes the purchase value of the item, minus the salvage price of the item, divided by the number of time periods. In this instance, it would be $10,000 minus $1,000, or $9,000. The $9,000 is divided by five years and equates to $1,800 per year.

☒ **A**, **C**, and **D** are all incorrect, as they do not reflect the correct calculation.

20. ☑ **B.** The BAC is the budget at completion, which is $290,000.

☒ **A** is incorrect, as it describes the earned value for the project. **C** and **D** are both incorrect values.

21. ☑ **C.** $26,000 is the variance. This is calculated by subtracting the actual costs of $65,000 from the earned value of $39,000. EV is calculated by taking the 30 percent completion of the project against the BAC. The project is considered to be 30 percent complete because it's slated for ten months, is currently in month three, and is on schedule.

☒ **A**, **B**, and **D** are all incorrect calculations for the problem.

22. ☑ **A.** The earned value is calculated by multiplying the percentage of completion, 40 percent, by the BAC, which is $600,000, for a value of $240,000.

☒ **B**, **C**, and **D** are incorrect calculations of the earned value formula.

23. ☑ **C** is the correct answer. The EV of $240,000 is divided by the AC of $270,000 for a value of .89.

☒ **A** and **D** are incorrect calculations. **B** is incorrect, as the value needs a decimal.

24. ☑ **B.** The learning curve allows the cost to decrease as a result of decreased installation time

as workers complete more of the installation procedure.

☒ Choices **A**, **C**, and **D** are all incorrect choices, as they do not correctly describe the learning curve in relation to time and cost.

25. ☑ **A.** Of the choices presented, historical information from a recently completed project is the most reliable source of information.

☒ **B**, while valuable, is not as proven as historical information. **C** is incorrect, as recollections are the least reliable source of information. **D** is also incorrect, though it may prove valuable in the planning process.

1. Which of the following is responsible for the quality of the project deliverables?

    A. Project champion
    B. Project team
    C. Stakeholders
    D. Customers

2. What type of chart is this?

    A. Control
    B. Pareto
    C. Scatter
    D. Flow

3. You are the project manager for the BBB Project. Stacy, a project team member, is confused about what QA is. Which of the following best describes QA?

    A. QA is quality assurance for the overall project performance.
    B. QA is quality acceptance according to scope verification.
    C. QA is quality assurance for the project deliverable.
    D. QA is quality assurance for the project stakeholders.

4. You are the project manager for the Photo Scanning Project. This project is similar to another project you have completed. Your project is to electronically store thousands of historical photos for your city's historical society. Quality is paramount on this project. Management approaches you and asks why you have devoted so much of the project time for planning. Your response is which of the following?

    A. This is a first-time, first-use project, so more time is needed for planning.
    B. Planning for a project of this size, with this amount of quality, is mandatory.
    C. Quality is planned into a project, not inspected in.

D. Quality audits are part of the planning time.

5. You are the project manager for the Floor Installation Project. Today, you plan to meet with your project team to ensure the project is completed with no deviations from the project requirements. This process is which of the following?

    A. Quality planning
    B. Quality management
    C. Quality control
    D. Quality assurance

6. You are the project manager for the ASE Project. This project must map to industry standards in order to be accepted by the customer. You and your team have studied the requirements and have created a plan to implement the deliverables with the appropriate level of quality. This process is called which of the following?

    A. Quality planning
    B. Quality management
    C. Quality control
    D. Quality assurance

7. Which of the following is an example of internal failure cost?

    A. Rework
    B. Quality audits
    C. Random quality audits
    D. Project team training

8. QC is typically a(n) _____ process.

    A. Management
    B. Project manager
    C. Audit
    D. Inspection

9. QA is typically a(n) _____ process.

    A. Management
    B. Project manager
    C. Audit
    D. Inspection

10. You are the project manager for a large manufacturer of wood furniture. Your new project is the Shop Table Project, which will be the creation and manufacturing of a new table for woodworkers to use in their wood shops. On this project you have elected to use JIT for scheduling. Which of the following is an advantage to using

JIT?

    A. Requires materials to be readily available.
    B. Allows the project team to have control over the materials.
    C. Decreases the inventory investment.
    D. Allows for a broad range of deviation than other inventory solutions.

11. Your company has elected to use ISO 9000 standards. What is an attribute of ISO 9000?

    A. It ensures your company follows its own quality procedures.
    B. It ensures that your company will follow the set phases in each project from initiation to closure.
    C. It ensures that your company maps its processes to a proven process within the program.
    D. It ensures that QA and QC are integrated into the product or service your organization offers.

12. You are the project manager of the Halogen Installation Project. As this project gets underway, you receive notice from the program manager that the organization will be moving to Kaizen technologies as part of its quality management program. What are Kaizen technologies?

    A. Small improvements for small results
    B. Small improvements for all projects
    C. Small process and product improvements that are carried out on a continuous basis
    D. Small process improvements that are made to shorten the project duration

13. A fishbone diagram is the same as a(n) _____ chart.

    A. Ishikawa
    B. Pareto
    C. Flow
    D. Control

14. Management has asked you to define the correlation between quality and the project scope. Which of the following is the best answer?

    A. The project scope will include metrics for quality.
    B. Quality metrics will be applied to the project scope.
    C. Quality is the process of completing the scope to meet stated or implied needs.
    D. Quality is the process of evaluating the project scope to ensure quality exists.

15. Which of the following is most true about quality?

A. It will cost more money to build quality into the project.
B. It will cost less money to build quality into the project process.
C. Quality is inspection driven.
D. Quality is prevention driven.

16. _____ is a business philosophy to find methods to continuously improve products, services, and business practices.

    A. TQM
    B. ASQ
    C. QA
    D. QC

17. In quality management, which of the following is not an attribute of the cost of nonconformance?

    A. Loss of customers
    B. Downtime
    C. Safety measures
    D. Rework

18. You are the project manager for the KOY Project. This project requires quality that maps to federal guidelines. To ensure that you can meet these standards, you have elected to send the project team through training specific to the federal guidelines your project must adhere to. The costs of these classes can be assigned to which of the following?

    A. Cost of doing business
    B. Cost of quality
    C. Cost of adherence
    D. Cost of nonconformance

19. You are the project manager for the KOY Project. This project requires quality that maps to federal guidelines. During a quality audit, you discovered that a portion of the project work is faulty and must be done again. The requirement to do the work is an example of which of the following?

    A. Cost of quality
    B. Cost of adherence
    C. Cost of nonconformance
    D. Cost of doing business

20. Optimal quality is reached at what point?

    A. When the stakeholder accepts the project deliverable.
    B. When revenue from improvements equal the costs of conformance.

C. When revenue from improvement equals the incremental costs to achieve the quality.

D. When revenue from corrective actions equals the costs of the improvement.

21. You are the project manager of the JKL Project. The project is having some flaws in its production. Which analysis tool will allow you to determine the cause-and-effect of the production faults?

A. Flow chart
B. Pareto diagram
C. Ishikawa
D. Control chart

22. Linda is the project manager of a manufacturing project. She and her project team are using design of experiments to look for ways to improve quality. Which of the following best describes the method Linda and her team are using?

A. Design of experiments allows the project manager to move the relationship of activities to complete the project work with the best resources available.
B. Design of experiments allows the project manager to experiment with the project design to determine what variables are causing the flaws.
C. Design of experiments allows the project manager to experiment with variables to attempt to improve quality.
D. Design of experiments allows the project manager to experiment with the project design document to become more productive and provide higher quality.

23. You are the project manager of the Global Upgrade Project. Your project team consists of 75 project team members around the world. Each project team will be upgrading a piece of equipment in many different facilities. Which of the following could you implement to ensure the project team members are completing all of the steps in the install procedure with quality?

A. Checklists
B. WBS
C. PND
D. The WBS dictionary

24. Mark is the project manager of the PMH Project. Quality audits of the deliverables show there are several problems. Management has asked Mark to create a chart showing the distribution of problems and their frequencies. Management wants which of the following?

A. Control chart
B. Ishikawa chart
C. Pareto diagram

D. Flow chart

25. In the following graphic, what does the highlighted area represent?

A. Out of control data points
B. In control data points
C. Rule of seven
D. Standard deviation

Answers

1. ☑ **B.** The project team (the individuals completing the project work) is responsible for the quality of the project deliverables.

   ☒ **A** is incorrect; the project champion may review the work, but the responsibility to quality does not lie with this individual. **C** and **D** are also incorrect choices; the customer and other stakeholders are not responsible for the quality of the project.

2. ☑ **A.** The chart shown is a control chart.

   ☒ **B** is incorrect since a Pareto diagram maps categories of issues and their frequency. **C** is incorrect; a scatter chart compares common values across multiple categories. **D**, a flow chart, is incorrect also; flow charts illustrate how a process moves through a system and how the components are interrelated.

3. ☑ **A.** QA is concerned with overall project quality performance.

   ☒ **B**, **C**, and **D** are incorrect because they do not correctly explain quality assurance.

4. ☑ **C.** Of all the choices presented, this is the best answer. Quality is planned into the project and the planning requires time.

   ☒ **A** is incorrect because a project of this nature has been completed before. **B** is incorrect because there is not enough information provided to determine what the quality demands of the project are. **D** is incorrect because quality audits are not part of the planning processes.

5. ☑ **A.** Quality planning should be completed prior to the work beginning-and thereafter be

revisited as needed.

☒ **B** is incorrect as Quality management is not an applicable answer to the scenario; **C** and **D** are incorrect, because QA and QC are part of quality management.

6. ☑ **A.** Quality planning is the process of creating a plan to meet the requirements of quality.

☒ Choices **B**, **C**, and **D** are incorrect because they do not explain the process in the questions scenario.

7. ☑ **A.** Internal failure cost is attributed to failure that results in rework. It is an example of the cost of nonconformance to quality.

☒ **B** and **C** are incorrect; quality audits are not a cost associated with nonconformance. **D** is incorrect because project team training is an example of the cost of conformance to quality.

8. ☑ **D.** QC requires an inspection of the work results. While quality is planned into a project, inspections ensure it exists.

☒ **A** is incorrect; QA is a managerial function. **B** is incorrect because another department, team member, or SME can complete QC. **C** is incorrect; an audit is too broad an answer for this question. Audits can be financial, schedule, or quality driven.

9. ☑ **A.** QA is typically a management process.

☒ **B** is incorrect because another department, team member, or SME can complete QC. **C** is incorrect because an audit is too broad of an answer for this question. Audits can be financial, schedule, or quality driven. **D** is wrong because QA is typically not an inspection process.

10. ☑ **C.** JIT, just-in-time scheduling, decreases the investment in inventory. However, mistakes with the materials can cause downtime if no additional materials are on hand.

☒ **A** is incorrect because materials are only available when they are needed. **B** is incorrect; the project team must use caution not to waste the materials. **D** is incorrect because JIT does not allow a broad range of deviation.

11. ☑ **A.** ISO 9000 is not a quality management system, but a system to ensure an organization follows its own quality procedures.

☒ **B**, **C**, and **D** are all incorrect. These choices do not correctly describe ISO 9000.

12. ☑ **C.** Kaizen technologies are small changes to processes and products on a steady, continuous basis to save costs and improve quality.

☒ **A** is incorrect; while Kaizen does implement small process changes, it does not aim for small results. **B** and **D** are also incorrect. Kaizen does not have to be implemented in all projects, though it often is. Kaizen is also not interested in necessarily reducing the project duration.

13. ☑ **A.** A fishbone diagram is the same as an Ishikawa diagram.

☒ **B**, **C**, and **D** are incorrect; these charts and diagrams accomplish goals other than the

cause-and-effect of the Ishikawa.

14. ☑ **C.** Quality, in regard to the project scope, is about completing the work as promised.

   ☒ **A** is incorrect; the project scope will have requirements for acceptance, but may not have metrics for quality defined. **B** and **D** are also incorrect.

15. ☑ **D.** Quality is prevention driven. Quality wants to complete the work correctly the first time to prevent poor results, loss of time, and loss of funds.

   ☒ **A** and **B** are incorrect; there is no guarantee that a project will cost more or less depending on the amount of expected quality. Incidentally, lack of quality will likely cost more than quality planning because of the cost of nonconformance. **C** is incorrect because quality is planned into a project, not inspected in.

16. ☑ **A.** TQM, Total Quality Management, is a business philosophy to find methods to continuously improve.

   ☒ **B**, ASQ (American Society of Quality) is not a business philosophy. **C** and **D** are attributes of TQM, but are not correct answers for this question.

17. ☑ **C.** A safety measure is not an attribute of the cost of nonconformance, but rather a cost of adhering to quality.

   ☒ **A**, **B**, and **D** are incorrect choices; these are all attributes of the cost of nonconformance.

18. ☑ **B.** Training to meet the quality expectations are attributed to the cost of quality.

   ☒ **A**, **C**, and **D** are incorrect because these choices do not describe training as a cost of quality.

19. ☑ **C.** When project work results are faulty and must be done over, it is attributed to the cost of nonconformance to quality.

   ☒ **A**, **B**, and **D** are all incorrect; these values do not describe faulty work or the cost of nonconformance.

20. ☑ **C.** Marginal analysis provides that optimal quality is reached when the cost of the improvements equals the incremental costs to achieve the quality.

   ☒ **A**, **B**, and **D** are incorrect. These answers do not describe marginal analysis.

21. ☑ **C.** The key words 'cause-and-effect' equate to the Ishikawa diagram.

   ☒ **A** is incorrect; a flow chart will show how a process moves through the system, but not the cause-and-effect of the problems involved. **B** is incorrect as well. A Pareto chart maps out the causes and frequency of problems. **D**, a control chart, plots out the results of sampling, but does not show the cause-and-effect of problems.

22. ☑ **C.** Of all the choices presented, C is the best. Design of experiments uses experiments and 'what-if' scenarios to determine what variables are affecting quality.

   ☒ **A** is incorrect because design of experiments, in regard to quality, is not interested in changing the relationship of activities to complete project work. **B** and **D** are also incorrect

because design of experiments will not be changing project design to determine where flaws exist or to become more productive.

23. ☑ **A.** Checklists are simple but effective quality management tools that the project manager can use to ensure the project team is completing the required work.

   ☒ **B**, **C**, and **D** are all incorrect. The WBS, PND, and WBS dictionary are not tools the project team can necessarily use to prove they've completed required work. Checklists are the best approach for this scenario.

24. ☑ **C.** Management wants Mark to create a Pareto diagram. Recall that a Pareto diagram maps out the causes of defects and illustrates their frequency.

   ☒ **A** is incorrect because a control chart does not identify the problems, only the relation of the results to the expected mean. **B** is incorrect because a cause-and-effect diagram does not map out the frequency of problems. **D** is also incorrect; flow charts show how a process moves through a system and how the components are related.

25. ☑ **C.** The highlighted area shows seven consecutive sampling results all on one side of the mean; this is known as the rule of seven and is an assignable cause.

   ☒ **A** is incorrect; these values are in control. **B** is correct, but it does not fully answer the question as choice **C** does. **D** is incorrect; standard deviation is a predicted measure of the variance from the expected mean of a sampling.

1. You are the project manager for the JHG Project. This project requires coordination with the Director of Manufacturing, Human Resources, the IT department, and the CIO. This is an example of what type of input to organizational planning?

   A. Organizational interfaces
   B. Technical interfaces
   C. Interpersonal interfaces
   D. Human resource coordination

2. Your project requires an electrician at month eight. This is an example of which of the following?

   A. Organizational interfaces
   B. Staffing requirements
   C. Contractor requirements
   D. Resource constraints

3. You are the project manager of the PUY Project. This project requires a chemical engineer for seven months of the project although there are no available chemical engineers within your department. This is an example of which of the following?

   A. Organizational interfaces
   B. Staffing requirements
   C. Contractor requirements
   D. Resource constraints

4. You are the project manager in an organization with a weak matrix. Who will have the authority on your project?

   A. The project manager
   B. The customer
   C. Functional management
   D. The team leader

5. You are the project manager for the LMG Project. Your project will have several human resource issues that must be coordinated and approved by the union. Which of the following statements is correct about this scenario?

   A. The union is considered a resource constraint.
   B. The union is considered a management constraint.
   C. The union is considered a project stakeholder.
   D. The union is considered a project team member.

6. You are the project manager of the PLY Project. This project is very similar to the ACT Project you have completed. What method can you do to expedite the process of organization planning?

   A. Use the project plan of the ACT Project on the PLY Project.
   B. Use the roles and responsibilities definitions of the ACT Project on the PLY Project.
   C. Use the project team structure of the ACT Project on the PLY Project.
   D. Use the project team of the ACT Project on the PLY Project.

7. In your organization, management is referred to as coaches. As a project manager, you are referred to as a project coach. A human resource document should be created to handle this scenario. What should it cover?

   A. How coaches are separate from managers.
   B. How coaches are the same as managers.
   C. How a coach is to complete his or her job.
   D. How the project team is to work for a coach.

8. Management has requested that you create a chart depicting all of the project resource needs and the associated activities. Management is looking for which type of chart?

   A. . A roles chart
   B. A roles matrix
   C. A roles and responsibilities matrix
   D. A Gantt chart

9. Which of the following is an example of Theory X?

   A. Self-led project teams
   B. Micromanagement
   C. Team members able to work on their own accord
   D. EVM

10. You are the project manager of the PLN Project. The team members are somewhat "afraid" of you as project manager because they see you as management. They know that a negative review from you about their project work will impact their yearly bonus. This is an example of which of the following?

    A. Formal power
    B. Coercive power
    C. Expert power
    D. Referent power

11. You are the project manager of the MMB Project. The president of the company has spoken to the project team and told them the confidence and respect he has in you to

lead the project to a successful completion. The project manager has what type of power on this project?

    A. Formal power
    B. Coercive power
    C. Expert power
    D. Halo power

12. Management has approached Tyler, one of your project team members. Tyler is a database administrator and developer, whose work is always on time, accurate, and of quality. He also has a reputation of being a "good guy" and is well liked. Because of this, management has decided to move Tyler into the role of a project manager for a new database administration project. This is an example of which of the following?

    A. Management by exception
    B. The halo effect
    C. Management by objectives
    D. McGregor's Theory of X and Y

13. Susan is the project manager for the PMG Project. She makes all decisions on the project team regardless of the project team objections. This is an example of which of the following management styles?

    A. Autocratic
    B. Democratic
    C. Laissez faire
    D. Exceptional

14. Which problem-solving technique is the best for most project management situations?

    A. Confronting
    B. Compromising
    C. Forcing
    D. Avoidance

15. Harold is a very outspoken project team member. All of the project team members respect Harold for his experience with the technology, but often things have to go in Harold's favor or things do not go well. During a discussion on a solution, a project team member waves her arms and says, "Fine, Harold, do it your way." This is an example of which of the following?

    A. A win-win solution
    B. A leave-lose solution
    C. A lose-lose solution
    D. A yield-lose solution

16. You are the project manager for the GBK Project. This project effects a line of business and the customer is anxious about the success of the project. Which of the following is likely not a top concern for the customer?

    A. Project priorities
    B. Schedule
    C. Cost
    D. Personality conflicts

17. Which theory believes that workers need to be involved with the management process?

    A. McGregor's Theory of X and Y
    B. Ouchi's Theory Z
    C. Herzberg's Theory of Motivation
    D. Expectancy Theory

18. _____ states that as long as workers are rewarded they will remain productive.

    A. McGregor's Theory of X and Y
    B. Ouchi's Theory Z
    C. Herzberg's Theory of Motivation
    D. Expectancy Theory

19. You are the project manager for Industrial Lights Project. You have been hired by your organization specifically because of your vast experience with the technology and with projects of this nature. The project is aware of your experience. You likely have what type of power on this project?

    A. Formal power
    B. Coercive power
    C. Expert power
    D. Referent power

20. You are the project manager for GHB Project. You have served as a project manager for your organization for the past ten years. Practically all of your projects come in on time and on budget. The project team has worked with you in the past and they consider you to be an expert project manager. They also like working with you. Given all of this, you likely have what type of power on this project?

    A. Formal power
    B. Coercive power
    C. Expert power
    D. Referent power

21. Which of the following is an example of coercive power?

    A. A project manager that has lunch with the project team every Thursday.
    B. A project manager that will openly punish any team member who is late with an activity.
    C. A project manager that has worked with the technology on the project for several years.
    D. A project manager that is friends with all of the project team members.

22. Charles is the project manager for the WAC Project. The customer and a project team member are in conflict over the level of quality needed on a sampling. Charles decides to split the difference between what the two stakeholders want. This is an example of which of the following?

    A. . A win-win solution
    B. A win-lose solution
    C. A lose-lose solution
    D. . A leave-lose solution

23. Mike is the project manager for a project with a very tight schedule. The project is running late and Mike feels that he does not have time to consider all the possible solutions that two team members are in disagreement over. Mike quickly decides to go with the team member with the largest amount of seniority. This is an example of which of the following?

    A. Problem solving
    B. Compromising
    C. Forcing
    D. Withdrawal

24. You are a project manager in a projectized organization. Your job as a project manager can be described best by which of the following?

    A. Full-time
    B. Part-time
    C. Expeditor
    D. Coordinator

25. What is the benefit of using a collocated team?

    A. The project team is dispersed so the team is self-led.
    B. The project team is dispersed so communication increases.
    C. The project team is in the same physical location so their ability to work as a team is enhanced.
    D. The project team is in the same physical location so project costs are greatly

reduced.

Answers

☑ **A.** The reporting interfaces for this project—the Directors of Manufacturing, Human Resources, and the IT department, as well as the CIO—are examples of the organizational interfaces.

☒ **B** is incorrect; technical interfaces are the technical gurus for the project, such as the engineers and designers. **C**, the interpersonal interfaces, is not the best choice since this relationship describes the different individuals working on the project. **D**, human resource coordination, is also incorrect.

☑ **B.** Because the project requires the electrician, a project role, this is a staffing requirement.

☒ **A** is incorrect because it does not accurately describe the situation. **C** is incorrect; contractor requirements would specify the procurement issues, the minimum qualifications for the electrician, and so on. **D** is incorrect; a resource constraint, while a tempting choice, deals more with the availability of the resource or the requirement to use the resource.

☑ **B.** The project needs the resource of the chemical engineer to be successful. When the project needs a resource, it is a staffing requirement.

☒ **A**, **C**, and **D** are all incorrect. This is not a situation describing an organizational interface or contractor requirements. Resource constraints might include a requirement to use a particular resource or that a resource must be available when certain project activities are happening.

☑ **C.** In a Weak Matrix structure, functional management will have more authority than the project manager.

☒ **A**, **C**, and **D** are all incorrect since they do not have as much authority on a project in a weak matrix environment as functional management will have.

☑ **C.** In this instance, the union is considered a project stakeholder since it has a vested interest in the project's outcome.

☒ **A** is incorrect because the union is not a resource constraint; they are interested in the project management methodology and the project human resource management. **B** is incorrect; the union is the counterweight to the management of the organization—not to the project itself. **D** is also incorrect; the union is not a project team member.

☑ **B.** When projects are similar in nature, the project manager can use the roles and responsibilities definitions of the historical project to guide the current project.

☒ **A** is incorrect; the entire project plan of the ACT Project is not needed. Even the roles and responsibilities matrix of the historical project may not be an exact fit for the current project. **C** is incorrect; copying the project team structure is not the best choice of all the answers

presented. **D** is also incorrect because using the same project team may not be feasible at all.

7. ☑ **C.** When project managers, or managers in general, are referred to as different terms, a job description is needed so the project manager can successfully complete the required obligations.

   ☒ **A** and **B** are incorrect choices. The project manager must know what the specific responsibilities, not the similarities and differences, between the current role and management. **D** is also incorrect; by the project manager knowing how to complete their job, the role of the project team should be evident.

8. ☑ **C.** Management is looking for a roles and responsibility matrix. This chart lists the roles and responsibilities, and depicts the intersection of the two.

   ☒ **A** and **B** are incorrect; management is looking for more than a listing of the roles and the associated responsibilities. **D** is not an acceptable answer for the scenario presented.

9. ☑ **B.** Theory X believes workers have an inherent dislike of work and will avoid it if possible. Micromanagement is a method, in regard to Theory X, to make certain workers complete their work.

   ☒ **A** and **C** are actually examples of McGregor's Theory Y. **D** is incorrect because EVM is not directly related to McGregor's Theory X and Y.

10. ☑ **B.** When the project team is afraid of the power the project manager yields, this is called coercive power.

    ☒ **A**, **C**, and **D** are incorrect since these describe assigned, referential, and technical power over the project.

11. ☑ **A.** The company president has assigned you to the position of the project manager, so you have formal power.

    ☒ **B** is incorrect because coercive power is the associated fear of the project manager. C is incorrect because expert power is derived from the project manager's experience with the technology being implemented. **D** is also incorrect; halo power is not a viable answer to the question.

12. ☑ **B.** The halo effect is the assumption that because the person is good at a technology they'd also be good at managing a project dealing with said technology.

    ☒ **A**, **C**, and **D** are all incorrect since these do not describe the halo effect.

13. ☑ **A.** Susan is an autocratic decision maker.

    ☒ **B** is incorrect because a democracy counts each project team member's opinion. **C** is incorrect; laissez faire allows the project team to make all the decisions. **D** is also incorrect; this is not exceptional project management.

14. ☑ **A.** Confronting is the best problem-solving technique since it meets the problem directly.

    ☒ **B** is incorrect; compromising requires both sides on an argument to give up something. **C** is incorrect; forcing requires the project manager to force a decision based on external inputs,

such as seniority, experience, and so on. **D** is also incorrect; avoidance ignores the problem and does not solve it.

15. ☑ **D.** When Harold always has to win an argument and team members begin to give into Harold's demands simply to avoid the argument rather than to find an accurate solution, this is a yield-lose situation.

    ☒ **A** is incorrect since both parties do not win. **B** is incorrect since the project team member did not leave the conversation, but rather ended it. **C** is incorrect; a lose-lose is a compromise where both parties give up something.

16. ☑ **D.** Personality conflicts are likely a concern for the customer, but are not as important as project priorities, schedule, and cost. The customer hired your company to solve the technical issues.

    ☒ Choices **A**, **B**, and **C** are all incorrect since these are most likely the top issues for a company in a project of this magnitude.

17. ☑ **B.** Ouchi's Theory Z states that workers need to be involved with the management process.

    ☒ **A** is incorrect; McGregor's Theory of X and Y believes X workers don't want to work and need constant supervision; Z workers will work if the work is challenging, satisfying, and rewarding. **C** is incorrect; Herzberg's Theory of Motivation describes the type of people and what excites them to work. **D**, the Expectancy Theory, describes how people will work based on what they expect because of the work they do.

18. ☑ **D.** The Expectancy Theory describes how people will work based on what they expect because of the work they do. If people are rewarded because of the work they complete, and they like the reward (payment), they will continue to work.

    ☒ **A**, **B**, and **C** are all incorrect since these theories do not accurately describe the scenario presented.

19. ☑ **C.** You, the project manager, have expert power on this project because of your experience with the technology and with projects that are similar in nature.

    ☒ **A**, **B**, and **D** are all incorrect. These project management powers do not accurately describe the scenario. Formal power is appointed power. Coercive power describes fear of the project manager. Referent power describes power by association and personal knowledge.

20. ☑ **D.** This is referent power because the project team knows the project manager personally.

    ☒ **A** and **B** are incorrect choices; these do not describe the scenario. **C** is incorrect; expert power does not deal with the ability to lead and complete a project, but it focuses on being an expert with the technology that the project deals with.

21. ☑ **B.** Coercive power is the power a project manager yields over the project team. Coercive power is the formal authority a project manager has over the project team.

    ☒ **A** is incorrect; only referent power may come through lunch meetings. **C** is incorrect;

experience is expert power. **D** is incorrect; interpersonal relationships are examples of referent power.

22. ☑ **C.** When both parties give up something, it is a compromise. A compromise is an example of a lose-lose solution.

    ☒ **A** is incorrect; win-win is accomplished through confrontation. **B** is incorrect; win-lose allows only one party to get what they want from the scenario. **D** is incorrect since a leave-lose solution is when one party walks away from the problem.

23. ☑ **C.** Forcing happens when the project manager makes a decision based on factors not relevant to the problem. Just because a team member has more seniority does not mean this individual is correct.

    ☒ **A**, **B**, and **D** are incorrect choices. Problem solving is not described in the scenario. **B**, compromising, happens when both parties agree to give up something. **D**, withdrawal, happens when a party leaves the argument.

24. ☑ **A.** project managers are typically assigned to a project on a full-time basis in a projectized organization.

    ☒ **B**, **C**, and **D** do not accurately describe the work schedule of a project manager in a projectized environment.

25. ☑ **C.** When a project team is collocated, all of the project team members are in the same physical location in order to increase their ability to work as a team.

    ☒ **A** and **B** are incorrect; collocated teams are not dispersed; non-collocated teams are dispersed. **D** is incorrect since a collocated team does not ensure that costs are reduced; in some situations, costs may be increased due to travel to bring all the team members together to complete the project.

1. Of the following, which one is not an example of formal communications?

   A. Presentations to groups
   B. Ad hoc conversations
   C. Contractual agreements
   D. Presentations to management

2. Of the following, which one is an example of informal communications?

   A. Memos
   B. Presentations to groups
   C. Briefings
   D. Speeches

3. You are the project manager for the LKH Project. Management has requested that you create a document detailing what information will be expected from stakeholders and to whom that information will be disseminated. Management is asking for which one of the following?

   A. Roles and responsibilities matrix
   B. Scope Management Plan
   C. Communications Management Plan
   D. Communications worksheet

4. Which one of the following will help you, the project manager, complete the needed Communications Management Plan by identifying the stakeholders and their communication needs?

   A. Identification of all communication channels
   B. Formal documentation of all communication channels
   C. Formal documentation of all stakeholders
   D. Communication matrix

5. You are the project manager for the JGI Project. You have 32 stakeholders on this project. How many communications channels do you have?

   A. Depends on the number of project team members.
   B. 496
   C. 32
   D. 1

6. You are the project manager for the KLN Project. You had 19 stakeholders on this project. You have added three team members to the project. How many more

communication channels do you have now than before?

    A. 171
    B. 231
    C. 60
    D. 1

7. A memo has been sent to you, the project manager, project team members, and the project customers from the project sponsor. In this instance, who is the encoder?

    A. Project sponsor
    B. Project manager
    C. Project team members
    D. Project customers

8. Which one of the following can use EVM in its preparation for management?

    A. Status reports
    B. Trend reports
    C. Performance reports
    D. All of the above

9. What does the following figure mean?

    A. It is a control chart to manage communications between the project manager and the project sponsor.
    B. It is a control chart to manageme communications between the project manager and Management.
    C. It is a variance chart to manage communications between the project manager and Management.
    D. It is a bull's eye to manage communications between the project manager and the Management.

10. Of the following, which term describes the pitch and tone of an individual's voice?

    A. Paralingual
    B. Feedback
    C. Effective listening

D. Active listening

11. You are the project manager of the KMH Project. This project is slated to last eight
    years. You have just calculated EVM and have a CV of –$3500. What type of report
    is needed for management?

    A. Progress report
    B. Forecast report
    C. Exception report
    D. Trends report

12. In your Communications Management Plan, you have detailed administrative closure.
    At what point will administrative closure take place?

    A. When the project is archived
    B. At the completion of each phase
    C. Only when the project is complete or cancelled
    D. As management sees fit

13. You are the project manager for OOK Project. You will be hosting project meetings
    every week. Of the following, which one is not a valid rule for project meetings?

    A. Schedule recurring meetings as soon as possible
    B. Allow project meetings to last as long as needed
    C. Distribute meeting agendas prior to the meeting start
    D. Allow the project team to have input to the agenda

14. The three basic elements needed for communication in project management are

    A. Words, sentences, paragraphs
    B. Proper grammar, spelling, ideas
    C. Verbal, nonverbal, action
    D. Sender, receiver, message

15. Which one of the following is the method of analyzing project performance preferred
    in government projects?

    A. Communications management
    B. Management by walking around
    C. EVM
    D. Variance analysis

16. What percentage of a message is sent through nonverbal communications, such as
    facial expressions, hand gestures, and body language?

    A. Greater than 50 percent

B. 30 to 40 percent
C. 20 to 30 percent
D. 10 to 20 percent

17. Which one is not a filter for receivers of communication?

   A. Culture
   B. Conflict
   C. Knowledge
   D. Language

18. You are finalizing project completion. You will gather, generate, and disseminate project information. This is known as which one of the following?

   A. Project closure
   B. Project postmortem
   C. Administrative closure
   D. Operational transfer

19. Often in project management you will have to negotiate. Negotiations work best in which environment?

   A. Caution and yielding
   B. Sincerity, honesty, and extreme caution
   C. Mutual respect and admiration
   D. Mutual respect and cooperation

20. You are the project manager for the PMU Project. Your project has 13 members. You have been informed that next week your project will receive the seven additional members you requested. How many channels of communications will you have next week?

   A. 1
   B. 78
   C. 190
   D. 201

21. Which one of the following will result in the most productive results when negotiating?

   A. Yielding
   B. Forcing
   C. Collaborating
   D. Compromising

22. Which one of the following is an output from performance reporting?

    A. Trend analysis
    B. EVM
    C. Variance analysis
    D. Change requests

23. The process of sending information from the project manager to the project team is called which of the following:

    A. Functioning
    B. Matrixing
    C. Blended communications
    D. Transmitting

24. George is the project manager of the 7YH Project. In this project, George considers the relation between himself and the customer to be of utmost important. Which one of the following is a valid reason for George's belief in the importance of the relationship between the customer and himself?

    A. The customer will complete George's performance evaluation. A poor communication model between George and the customer will affect his project bonus.
    B. The customer is not familiar in project management. George must educate the customer on the process.
    C. The customer is always right.
    D. The communication between the customer and George can convey the project objectives more clearly than can the language in the project contract.

25. Which one of the following means that communications occur?

    A. The transfer of knowledge
    B. The outputting of knowledge
    C. The presence of knowledge
    D. The transmission of knowledge

Answers

1. ☑ **B.** Ad hoc conversations, while often effective, are not examples of formal communications, as they are impromptu meetings.

☒ **A,** presentations to groups, is an example of formal communication. **C,** contractual agreements, are a type of formal communication. Finally, **D** is incorrect; presentations to management are formal.

2. ☑ **A.** Memos are examples of informal communication.

☒ Choices **B, C,** and **D** are incorrect, as presentations, briefings, and speeches are formal communication.

3. ☑ **C.** Management is requesting a Communications Management Plan, which details the requirements and expectations for communicating information among the project stakeholders.

☒ **A** is incorrect; a roles and responsibilities matrix depicts who does what and who makes what decisions. **B,** the Scope Management Plan, is also incorrect; this plan explains how changes to the scope may be allowed depending on the circumstances. **D** is not a valid choice for the question.

4. ☑ **D.** A communication matrix is an excellent tool to identify the stakeholders and their requirements for communication.

☒ **A, B,** and **C** are incorrect, as these choices do not fully answer the question. A communication matrix is the best tool to identify stakeholders' requirements for communication.

5. ☑ **B.** Using the formula N(N–1)/2, where N represents the number of stakeholders, there are 496 communication channels.

☒ Choices **A, C,** and **D** are incorrect; these values do not reflect the number of communication channels on the project.

6. ☑ **C.** This is a tough question, but typical of the PMP exam. The question asks how many more communication channels exist. You'll have to calculate the new value, which is 231, and then subtract the original value, which is 171, for a total of 60 new channels.

☒ **A.** is incorrect; 171 is the original number of communication channels. **B** is incorrect as this value reflects the new number of communication channels. **D** is not a valid choice.

7. ☑ **A.** The project sponsor is the source of the memo, as this is the sender of the message.

☒ **B, C,** and **D** are all recipients of the memo, not the sender, so they cannot be the source of the message.

8. ☑ **D.** Status, trend, and performance reports can all use EVM as an input.

☒ Choices **A, B,** and **C** are all incorrect, as EVM can be used in each of these reports.

9. ☑ **D.** The figure is called a communications bull's eye and is used to trigger communication needs to management when EVM results fall within the identified ranges.

☒ Choices **A, B,** and **C** are incorrect, as these choices do not accurately identify the illustration.

10. ☑ **A.** Paralingual is a term used to describe the pitch and tone of one's voice.

☒ **B,** feedback, is a request to confirm the information sent in the conversation. **C,** effective listening, is the ability to understand the message through what is said, facial expressions,

gestures, tone and pitch, and son on. **D,** active listening, is the process of confirming what is understood and asking for clarification when needed.

11. ☑ **C.** An exception report is typically completed when variances exceed a given limit.

   ☒ **A** is incorrect; progress reports describe the progress of the project or phase. **B** is incorrect, as this is not a valid answer. **D,** trends report, is an analysis of project trends over time.

12. ☑ **B.** Administrative closure should take place at the completion of each phase.

   ☒ **A,** while tempting, is incorrect; administrative closure will need to be completed prior to archiving the project records. **C** is also incorrect; administrative closure does not take place only at project completion and cancellation; it can happen at the end of each project phase. **D** is not a valid choice.

13. ☑ **B.** Project meetings should have a set time limit.

   ☒ **A, B,** and **C** are incorrect answers because these are good attributes of project team meetings.

14. ☑ **D.** The three parts to communication are sender, receiver, and message.

   ☒ Choices **A, B,** and **C** are all incorrect choices.

15. ☑ **C.** EVM is all about analyzing project performance.

   ☒ **A.** communications management, focuses on managing communications, not performance. **B,** management by walking around, is an effective management style, but it does reflect project performance. **D,** variance analysis, focuses on the root causes of variances within the project, but not solely on the project performance.

16. ☑ **A.** Greater than 50 percent of a message is sent through nonverbal communications.

   ☒ Choices **B, C,** and **D** are incorrect.

17. ☑ **B** Conflict is not a filter of communication—it is a communication hindrance.

   ☒ Choices **A, C,** and **D** are incorrect choices; culture, knowledge, and language are filters for receivers.

18. ☑ **C.** Administrative closure is the process of generating, gathering, and disseminating project information.

   ☒ **A** and **B** are incorrect, as project closure and project postmortem involve more than just generating, gathering, and disseminating project information. **D,** operational transfer, is the process of moving the project deliverable into operations.

19. ☑ **D.** Mutual respect and cooperation is the environment needed for fair and balanced negotiations.

   ☒ **A,** caution and yielding, is not a good environment for negotiations. **B,** while tempting, is not the best choice. **C** is incorrect, as the people in negotiations don't necessarily need to admire one another.

20. ☑ **C.** The project currently has 13 team members and next week seven additional team members come aboard for a total of 20 team members. Using the formula N(N–1)/2 where N is the number of identified stakeholders the communication channels equal 190.

☒ **A, B,** and **D** are all incorrect choices.

21. ☑ **C.** Collaborating is the ideal method when negotiating. The goal of negotiations is to work together for the good of the project.

☒ **A,** yielding, is not working for the good of the project. **B,** forcing, exerts power over one party without properly negotiating. **D,** compromising, calls for both parties to give up something without necessarily working together for the good of the project.

22. ☑ **D.** Of all the choices, change requests is the only acceptable answer. Incidentally, there are two outputs of performance reporting: change requests and performance reports.

☒ **A.** Trend analysis is the study of project performance results to determine if the project is improving or failing. It is a tool used as part of performance reporting, but it is not an output of performance reporting. **B** and **C** are also tools used in performance reporting, but they are not an output of the process.

23. ☑ **D.** When information is sent, it is considered to be transmitted.

☒ **A, B,** and **C** are all incorrect choices.

24. ☑ **D.** George and the customer's relationship can allow clearer communication on the project objectives than what may be expressed in the project contract. The contract should take precedence on any issues, but direct contact is often the best way to achieve clear and concise communication.

☒ **A** is an incorrect choice as the focus is on personal gain rather than the good of the project. **B** is incorrect as the customer does not necessarily need to be educated on the project management process. **C** is incorrect; the customer is not always right—the contract will take precedence in any disagreements.

25. ☑ **A.** The transfer of knowledge is evidence that communication has occurred.

☒ **B** and **C** do not necessarily mean the knowledge has originated from the source and been transferred to the recipient. D is incorrect; messages are transmitted, but knowledge is transferred.

1. Which of the following is not an input to risk management planning?

    A. The project charter
    B. Risk identification
    C. Defined roles and responsibilities
    D. WBS

2. Frances is the project manager of the LKJ Project. Which of the following techniques will she use to create the risk management plan?

    A. Risk tolerance
    B. Status meetings
    C. Planning meetings
    D. Variance meetings

3. Which of the following is the output of risk management planning?

    A. Roles and responsibilities
    B. Operational transfer issues
    C. Risk response plan
    D. Risk management plan

4. You are the project manager of the GHK Project. You and the manufacturer have agreed to substitute the type of plastic used in the product to a slightly thicker grade should there be more than a seven percent error in production. The thicker plastic will cost more and require the production to slow, but the errors should diminish. This is an example of which of the following?

    A. Threshold
    B. Tracking
    C. Budgeting
    D. JIT manufacturing

5. A person's willingness to tolerate risk is known as _____.

    A. The utility function
    B. Herzberg's Theory of Motivation
    C. Risk acceptance
    D. The risk-reward ratio

6. A risk trigger is also called which of the following?

    A. A warning sign

B. A delay
C. A cost increase
D. An incremental advancement of risk

7. The customers of the project have requested additions to the project scope. The project manager brings notice that additional risk planning will need to be added to the project schedule. Why?

    A. The risk planning should always be the same amount of time as the activities required by the scope change.
    B. Risk planning should always occur whenever the scope is adjusted.
    C. Risk planning should only occur at the project manager's discretion.
    D. The project manager is incorrect; risk planning does not need to happen at every change in the project.

8. The risks of financial gain or loss are called _____.

    A. Business risks
    B. Financial risks
    C. Organizational risks
    D. Functional risks

9. _____ include(s) fire, theft, or injury, and offer(s) no chance for gain.

    A. Business risks
    B. Pure risks
    C. Risk acceptance
    D. Life risks

10. Complete this sentence: a risk is a(n)_____ occurrence that can affect the project for good or bad.

    A. Known
    B. Potential
    C. Uncertain
    D. Known unknown

11. When should risk identification happen?

    A. As early as possible in the initiation process
    B. As early as possible in the planning process
    C. As early as possible in the controlling process
    D. As early as possible in the execution process

12. You are the project manager of the KLJH Project. This project will last two years and

has 30 stakeholders. How often should risk identification take place?

    A. Once at the beginning of the project
    B. Throughout the execution processes
    C. Throughout the project
    D. Once per project phase

13. Risk identification is considered to be _____. (Choose the best answer.)

    A. Iterative
    B. Self-led
    C. Mandatory
    D. Optional

14. You are the project manager for a project that will create a new and improved web site for your company. Currently, your company has over eight million users around the globe. You would like to poll experts within your organization with a simple, anonymous form asking for any foreseeable risks with the design, structure, and intent of the web site. With the collected information, subsequent anonymous polls are submitted to the group of experts. This is an example of _____.

    A. Risk identification
    B. A trigger
    C. An anonymous trigger
    D. The Delphi Technique

15. Which of the following describes SWOT?

    A. Analysis of strengths, weakness, options, and timing
    B. Analysis of strengths, weakness, opportunities, and threats
    C. An elite project team that comes in and fixes project risks and threats
    D. Ratings of 1 to 100

16. Which risk analysis provides the project manager with a risk ranking?

    A. Quantifiable
    B. Qualitative
    C. The utility function
    D. SWOT analysis

17. A table of risks, their probability, impact, and a number representing the overall risk score is called a _____.

    A. Risk table
    B. Risk matrix

C. Quantitative matrix
D. Qualitative matrix

18. You are presented with the following table:

Risk Event	Probability	Impact Cost/Benefit	Ex$V
1	.20	-4000	
2	.50	5000	
3	.45	-300	
4	.22	500	
5	.35	-4500	

What is the Ex$V for Risk Event 3?

A. $135
B. -$300
C. $45
D. -$135

19. You are presented with the following table:

Risk Event	Probability	Impact Cost/Benefit	Ex$V
1	.35	-4000	
2	.40	50000	
3	.45	-300000	
4	.30	50000	
5	.35	-45000	

Based on the preceding table, what is the amount needed for the contingency fund?

A. Unknown with this information
B. 249,000
C. 117,150
D. 15750

20. The water sanitation project manager has determined the risks associated with handling certain chemicals are too high. He has decided to allow someone else to complete this portion of the project, and so has outsourced the handling and installation of the chemicals and filter equipment to an experienced contractor. This is an example of which of the following?

A. Avoidance
B. Acceptance
C. Mitigation

D. Transference

21. A project manager and the project team are actively monitoring the pressure gauge on a piece of equipment. Sarah, the engineer, recommends a series of steps to be implemented should the pressure rise above 80 percent. The 80-percent mark represents what?

   A. An upper control limit
   B. The threshold
   C. Mitigation
   D. A workaround

22. You are presented with the following table:

Risk Event	Probability	Impact Cost/Benefit	Ex$V
1	.20	-4000	
2	.50	5000	
3	.45	-300	
4	.22	500	
5	.35	-4500	
6			

Complete Risk 6 based on the following information: Marty is 60 percent certain that he can get the facility needed for $45,000, which is $7000 less than what was planned for.

   A. .60, 45,000, 27,000
   B. .60, 52,000, 31,200
   C. .60, 7,000, 4200
   D. .60, -7,000, -4200

23. How can a project manager determine whether it is better to make or buy a product?

   A. Decision Tree Analysis
   B. Fishbone model
   C. Ishikawa diagram
   D. ROI Analysis

24. Which of the following can determine multiple scenarios with risk and probability of impact?

   A. Decision trees
   B. Monte Carlo simulations

C. Pareto charts

D. Gantt charts

25. A project can have many risks with high-risk impact scores, but have an overall low risk score. How is this possible?

    A. The risk scores are graded on a bell curve.

    B. The probability of each risk is low.

    C. The impact of each risk is not accounted for until it comes to fruition.

    D. The risks are rated HML.

Answers

1. ☑ **B.** Risk identification is not an input to risk management planning.

☒ **A**, **C**, and **D** are all incorrect. The project charter, defined roles and responsibilities, and the WBS are all inputs to risk management planning.

2. ☑ **C.** Planning meetings are used to create the risk management plan. The project manager, project team leaders, key stakeholders, and other individuals with the power to make decisions regarding risk management attend the meetings.

☒ Choices **A**, **B**, and **D** are incorrect as these choices do not fully answer the question.

3. ☑ **D.** The only output of risk management planning is the risk management plan.

☒ **A** is incorrect; roles and responsibilities are an input to the risk management planning process. **B**, operational transfer issues, may have associated risks, but they are not an output of the risk management planning process. **C**, the risk response plan, is not an output of risk management planning. It is an output of risk response planning.

4. ☑ **A.** An error value of seven percent represents the threshold the project is allowed to operate under. Should the number of errors increase beyond seven percent, the current plastic will be substituted.

☒ **B** is incorrect since tracking is the documentation of a process through a system or workflow, or the documentation of events through the process. **C,** budgeting, is incorrect. **D,** JIT manufacturing, is a scheduling approach to ordering the materials only when they are needed in order to keep inventory costs down.

5. ☑ **A.** The utility function describes a person's willingness to tolerate risk.

☒ **B**, is incorrect; Herzberg's Theory of Motivation is an HR theory that describes motivating agents for workers. **C** is also incorrect; risk acceptance describes the action of allowing a risk to exist because it is deemed low in impact, low in probability, or both. **D,** the risk-reward ratio, is incorrect. This describes the potential reward for taking a risk in the project.

6. ☑ **A.** Risk triggers can also be known as warning signs. Triggers signal that a risk is about to

happen or has happened.

☒ **B**, **C**, and **D** are all incorrect, as these answers do not properly describer a risk trigger.

7. ☑ **B.** When the scope has been changed, the project manager should require risk planning to analyze the additions for risks to the project success.

☒ **A** is incorrect; the scope changes may not require the same amount of time as the activities needed to complete the project changes. **C** is incorrect because risk planning should not occur at the project manager's discretion, but instead should be based on evidence within the project and the policies adopted in the risk management plan. **D** is also incorrect; when changes are added to the project scope, risk planning should occur.

8. ☑ **A.** Business gains are directly tied to the risk of financial gains or loss.

☒ Choices **B, C,** and **D** are not relevant terms.

9. ☑ **B.** Pure risks are the risks that could threaten the safety of the individuals on the project.

☒ Choice **A** is incorrect because business risks affect the financial gains or loss of a project. **C** and **D** are incorrect since these terms are not relevant.

10. ☑ **C.** Risks are not planned, they are left to chance. The accommodation and the reaction to a risk can be planned, but the event itself is not planned. If risks could be planned, Las Vegas would be out of business.

☒ **A, B,** and **D** are all incorrect since these terms do not accurately complete the sentence.

11. ☑ **B.** Risk identification is a planning process and should happen as early as possible to allot adequate time for risk reaction planning.

☒ **A, C,** and **D** are all incorrect because risk identification does not happen as part of the initiation, controlling, or execution processes.

12. ☑ **C.** Risk identification happens throughout the project. Recall that planning is iterative; as the project moves towards completion, new risks may surface that call for identification and planned responses.

☒ **A** is incorrect; risk identification should happen throughout the project, not just at the beginning. **B** is incorrect because risk identification is part of planning. **D** is incorrect because the nature of the project phase may require and reveal more than one opportunity for risk identification.

13. ☑ **A.** Risk identification is an iterative process that should happen throughout the project life.

☒ **B** is incorrect since risk identification often requires intense analysis, team involvement, and experts to lead the process. **C** is incorrect; while risk identification may be considered mandatory, iterative is a better description because risk identification happens over and over. **D** is incorrect; risk identification is not optional.

14. ☑ **D.** An anonymous poll allowing experts to freely submit their opinion without fear of

backlash is an example of the Delphi Technique.

⊠ **A, B,** and **C** are incorrect; these choices do not accurately answer the question.

15. ☑ **B.** SWOT analysis is part of risk identification and examines the strengths, weakness, opportunities, and threats of the project to make certain all possibilities for risk identification are covered.

⊠ **A** is incorrect because SWOT examines all four perspectives. **C** and **D** are incorrect because these ratings are part of quantitative-qualitative risk analysis.

16. ☑ **B.** The risk ranking is based on the *very high, high, medium, low,* and *very low* attributes of the identified risks.

⊠ **A** is incorrect because it is not relevant to the questions. **C** is incorrect; utility function describes an organization's tolerance for risk. **D,** SWOT analysis, is part of risk identification.

17. ☑ **B.** A table of risks, their probability, and impact equate to a risk score in a risk matrix.

⊠ **A** is incorrect since it does not fully answer the questions. **C** and **D** are incorrect because a risk matrix can be used in both quantitative and qualitative risk analysis.

18. ☑ **D.** Risk Event 3 has a probability of 45 percent and an impact cost of -$300, which equates to -$135.

⊠ **A, B,** and **C** are all wrong because the values are incorrect answers for the formula.

19. ☑ **C.** The calculated amount for each of the risk events is shown in the following table:

Risk Event	Probability	Impact Cost/Benefit	Ex$V
1	0.35	-4000	-1400
2	0.4	50000	20000
3	0.45	-300000	-135000
4	0.3	50000	15000
5	0.35	-45000	-15750
			-117150

⊠ **A, B,** and **D** are incorrect answers because they do not reflect the contingency amount needed for the project based on the preceding table.

20. ☑ **D.** Because the risk is not eliminated but transferred to someone else or another entity, it is considered transference.

⊠ **A** is incorrect because the risk still exists, but it is handled by another entity. **B** is incorrect because the project manager has not accepted the risk, deciding instead to allow another entity to deal with it. **C** is incorrect; the risk has not been mitigated in the project.

21. ☑ **B.** The 80-percent mark is a threshold.

☒ **A** is incorrect; an upper control limit is a boundary for quality in a control chart. **C** is incorrect; mitigation is a planned response should a risk event happen. **D** is incorrect; a workaround is an action to bypass the risk event.

22. ☑ **C.** Marty is 60 percent certain he can save the project $7000. The $4200 represents the 60-percent certainty of the savings.

☒ **A, B,** and **D** are all incorrect since these values do not reflect the potential savings of the project.

23. ☑ **A.** A decision tree model can separate the pros and cons of buying versus building.

☒ **B** and **C** are incorrect; a fishbone diagram and an Ishikawa diagram show cause and effect. **D** is incorrect; ROI analysis does not answer the question as fully as a decision tree.

24. ☑ **B.** Monte Carlo simulations can reveal multiple scenarios and examine the risks and probability of impact.

☒ **A,** decision trees, help guide the decision making process. **C,** a Pareto chart, helps identify the leading problems in a situation. **D,** Gantt charts, compare the lengths of activities against a calendar in a bar chart format.

25. ☑ **B.** A risk can have a very high impact on the project, but inversely have an extremely low probability score.

☒ **A** is incorrect and not relevant to the scenario. **C** is not a true statement. **D** is also incorrect; a model using high, medium, low versus a numbering system would not alter the overall high or low risk score of the project.

1. Which of the following may be used as a risk mitigation tool?

   A. Vendor proposal
   B. Contract
   C. Quotation
   D. Project requirements

2. A contract cannot have provisions for which one of the following?

   A. A deadline for the completion of the work
   B. Illegal activities
   C. Subcontracting the work
   D. Penalties and fines for disclosure of intellectual rights

3. You are the project manager for the 89A Project. You have created a contract for your customer. The contract must have what two things?

   A. Offer and consideration
   B. Signatures and the stamp of a notary public
   C. Value and worth of the procured item
   D. Start date and acceptance of start date

4. The product description of a project can help a project manager create procurement details. Which one of the following best describes this process?

   A. A. The product description defines the contracted work.
   B. B. The product description defines the requirements for the contract work.
   C. C. The product description defines the contracted work, which must support the requirements of the project customer.
   D. D. Both parties must have and retain their own copy of the product description.

5. Yolanda has outsourced a portion of the project to a vendor. The vendor has discovered some issues that will influence the cost and schedule of its portion of the project. How must the vendor update the agreement?

   A. As a new contract signed by Yolanda and the vendor.
   B. As a contract addendum signed by Yolanda and the vendor.
   C. As a memo and SOW signed by Yolanda and the vendor.
   D. Project Management contracts have clauses that allow vendors to adjust their work according to unknowns.

6. The United States backs all contracts through which of the following?

   A. Federal law
   B. State law
   C. Court system
   D. Lawyers

7. Terry is the project manager of the MVB Project. She needs to purchase a piece of equipment for her project. The Accounting department has informed Terry she needs a unilateral form of contract. Accounting is referring to which of the following?

   A. SOW
   B. Legal binding contract
   C. Purchase Order
   D. Invoice from the vendor

8. Bonnie is the project manager for the HGH Construction Project. She has contracted a portion of the project to the ABC Construction Company. Bonnie has offered a bonus to ABC if they complete their portion of the work by August 30. This is an example of which one of the following?

   A. Project requirement
   B. Project incentive
   C. Project goal
   D. Fixed-price contract

9. The purpose of a contract is to distribute between the buyer and seller a reasonable amount of which of the following:

   A. Responsibility
   B. Risk
   C. Reward
   D. Accountability

10. Privity is what?

   A. Relationship between the project manager and a known vendor
   B. Relationship between the project manager and an unknown vendor
   C. Contractual, confidential information between customer and vendor
   D. Professional information regarding the sale between customer and vendor

11. Sammy is the project manager of the DSA Project. He is considering proposals and contracts presented by vendors for a portion of the project work. Of the following, which contract is least dangerous to the DSA Project?

   A. Cost plus fixed fee

B. Cost plus percentage of cost
C. Cost plus incentive fee
D. Fixed-price

12. In the following contract types, which one requires the seller to assume the risk of cost overruns?

    A. Cost plus fixed fee
    B. Cost plus incentive fee
    C. Lump sum
    D. Time and materials

13. Benji is the project manager of PLP Project. He has hired an independent contractor for a portion of the project work. The contractor is billing the project $120 per hour, plus materials. This is an example of which one of the following?

    A. Cost plus fixed fee
    B. Time and materials
    C. Unit-price
    D. Lump sum

14. Mary is the project manager of JHG Project. She has created a Statement of Work (SOW) for a vendor. For Mary's SOW to be a legal contract, what must be included?

    A. Affidavit of agreement
    B. Signatures of both parties agreeing to SOW
    C. Signature of vendor
    D. Signature of Mary

15. You are the project manager for a software development project for an accounting system that will operate over the Internet. Based on your research, you have discovered it will cost you $25,000 to write your own code. Once the code is written you estimate you'll spend $3,000 per month updating the software with client information, government regulations, and maintenance.

    A vendor has proposed to write the code for your company and charge a fee based on the number of clients using the program every month. The vendor will charge you $5 per month per user of the web-based accounting system. You will have roughly 1,200 clients using the system per month. However, you'll need an in-house accountant to manage the time and billing of the system, so this will cost you an extra $1,200 per month.

    How many months will you have to use the system before it is better to write your own code than to hire the vendor?

    A. 3 months

B. 4 months
C. 6 month
D. 15 months

16. You are completing the closeout of a project to design a warehouse in Columbus, Ohio. The contract is a Cost Plus Incentive Fee contract. The target costs are $300,000, with a 10 percent target profit. However, the project came in at $275,000. The incentive split is 80/20. How much is the total contract cost??

    A. $300,000
    B. $275,000
    C. $310,000
    D. $330,000

17. A contract between an organization and a vendor may include a clause that penalizes the vendor if the project is late. The lateness of a project has a monetary penalty; penalty should be enforced or waived based on which one of the following?

    A. If the project manager could have anticipated the delay
    B. If the project manager knew the delay was likely
    C. Whether the delay was because of an unseen risk
    D. Who caused the delay and the reason why

18. A single source seller means what?

    A. There is only one qualified seller.
    B. There is only one seller the company wants to do business with.
    C. There is a seller that can provide all aspects of the project procurement needs.
    D. There is only one seller in the market.

19. Which one of the following is not a valid evaluation criterion for source selection?

    A. Age of the contact person at the seller
    B. Technical ability of the seller
    C. Contract requirements
    D. Price

20. Henry has sent the ABN Contracting Company a letter of intent. This means which one of the following?

    A. Henry intends to sue the ABN Contracting Company.
    B. Henry intends to buy from the ABN Contracting Company.
    C. Henry intends to bid on a job from the ABN Contracting Company.
    D. Henry intends to fire the ABN Contracting Company.

21. Martha is the project manager of the MNB Project. She wants a vendor to offer her one price to do all of the detailed work. Martha is looking for which type of document?

    A. RFP
    B. RFI
    C. Proposal
    D. IFB

22. Which one of the following is true about procurement documents?

    A. They offer no room for bidders to suggest changes.
    B. They ensure receipt of complete proposals.
    C. They inform the performing organization why the bid is being created.
    D. The project manager creates and selects the bid.

23. In what process group does source selection happen?

    A. Initiating
    B. Planning
    C. Executing
    D. Closing

24. You have an emergency on your project. You have hired a vendor that is to start work immediately. What contract is needed now?

    A. T&M
    B. Fixed fee
    C. Letter contract
    D. Incentive contract

25. You are the project manager for a seller. You are managing another company's project. Things have gone well on the project, and the work is nearly complete. There is still a significant amount of funds in the project budget. The buyer's representative approaches you and asks that you complete some optional requirements to use up the remaining budget. You should do which one of the following?

    A. Negotiate a change in the contract to take on the additional work.
    B. Complete a contract change for the additional work.
    C. Gain the approval of the project stakeholder for the requested work.
    D. Deny the change because it was not in the original contract.

Answers

1. ☑ **B.** Contracts can be used as a risk mitigation tool. Procurement of risky activities is

known as *transference;* the risk does not disappear, but the responsibility for the risk is transferred to the vendor.

☒ **A, C,** and **D** are all incorrect. A vendor proposal, a quotation, and project requirements do nothing to serve as a risk mitigation tool.

2. ☑ **B.** A contract cannot contain illegal activities.

☒ **A** is incorrect, as a contract can stipulate a deadline for the project work. **C** is incorrect; contracts can specify rules for subcontracting the work. **D** is also incorrect; a contract can assess a penalty and fines for disclosing intellectual rights and secret information.

3. ☑ **A.** Of all choices presented, **A** is the best choice. Contracts have an offer and a consideration.

☒ **B** is incorrect, as not all contracts demand signatures and notary public involvement. **C** is incorrect; a contract may not explicitly determine what the value and worth of the procured product or service is. **D** is also incorrect; a contract may specify a start date, but the acceptance of the start date is vague and not needed for all contracts.

4. ☑ **C.** The product description defines the details and requirements for acceptance of the project. This information also serves as a valuable input to the process of determining what needs to be procured. The product description defines what the end result of the project will be. When dealing with vendors to procure a portion of the project, the work to be procured must support the requirements of the project's customer.

☒ **A** is incorrect because the product description defines the product as a whole, not just the contracted work, which may be just a portion of the project. **B** is incorrect; the product description does not define the requirements for the contract work. **D** is also incorrect; the vendor likely will not have a copy of the product description..

5. ☑ **B** is the best answer of all the choices presented. Because the question is asking for the vendor to update the agreement, **B** is the best choice.

☒ **A,** while feasible, is not the best answer to the question. A new contract does not update the original agreement and may cause delays, as the contract may have to be resubmitted, re-approved, and so on. **C** and **D** are not viable answers.

6. ☑ **C.** All contracts in the United States are backed by the US court systems.

☒ **A, B,** and **D** are not correct answers.

7. ☑ **C.** A unilateral form of a contract is simply a purchase order.

☒ **A, B,** and **D** are all incorrect choices. A SOW is a statement of work. A legal binding contract does not fully answer the question. **D,** an invoice from the vendor, is not what the purchasing department is requesting.

8. ☑ **B.** A bonus to complete the work by August 30 is an incentive.

☒ **A** is incorrect, as the question does not specify August 30 as a deadline. **C** is incorrect, as "project goal" does not fully answer the question. **D** is incorrect because the contract details

are not disclosed in this question.

9. ☑ **B.** A fair contract shares a reasonable amount of risk between the buyer and the seller.

☒ **A** is incorrect; a contract may transfer the majority of the responsibility to the vendor. **C** is incorrect; the reward is not an appropriate answer to the question. **D** is also incorrect; the accountability of the services contracted to the vendor is not shared between the buyer and the seller.

10. ☑ **C.** Privity is a confidential agreement between the buyer and seller.

☒ **A, B,** and **D** are incorrect choices, as these choices do not fully answer the question.

11. ☑ **D.** A Fixed-Price contract contains the least amount of risk for a project. The seller assumes all of the risk.

☒ **A, B, C** are incorrect, because these contract types carry the risk of cost overruns being assumed by the buyer.

12. ☑ **C.** A Lump Sum is a fixed fee to complete the contract; the seller absorbs any cost overruns.

☒ **A** and **B** are incorrect because these contracts require the seller to carry the risk of cost overruns. **D** is incorrect because Time and Materials contracts require the buyer to pay for cost overruns on the materials and the time invested in the project work.

13. ☑ **B.** The contractor's rate of $120 per hour plus the cost of the materials is an example of a Time and Materials contract.

☒ **A** is incorrect; a Cost Plus Fixed Fee charges the cost of the materials, plus a fixed fee, for the installation or work to complete the contract. **C** is incorrect; a Unit-Price has a set price for each unit installed on the project. **D** is also incorrect, as a Lump Sum does not break down the time and materials.

14. ☑ **B.** An SOW can be a contract if both parties agree to the SOW and sign the document as a contract.

☒ **A, C,** and **D** are incorrect. **A** is incorrect as it does not fully answer the question. **C** and **D** are incorrect; individuals with the authority from both parties need to sign the SOW.

15. ☑ **C.** The monies invested in the vendor's solution would have paid for your own code in six months. This is calculated by finding your cash outlay for the two solutions: $25,000 for your own code creation, and zero cash outlay for the vendor's solution. The monthly cost to maintain your own code is $3,000. The monthly cost of the vendor's solution is $7,200. Subtract your cost of $3,000 from the vendor's cost of $7,200 and this equals $4,200. Divide this number into the cash outlay of $25,000 to create your own code and you'll come up with 5.95 months. Of all the choices presented, **C**, six months, is the best choice.

☒ **A, B,** and **D** are all incorrect as they do not answer the question.

16. ☑ **C.** The total contract cost is $310,000. Here's how the answer is calculated: target cost is $300,000. The ten percent profit is $30,000. The finished cost was $275,000, a difference of $25,000 between the target and the actual. The contract calls for an 80/20 split if the contract

comes in under budget. The formula reads finished costs + profit margin + (.20 X under budget amount).

☒ **A, B,** and **D** are all incorrect as these choices do not reflect the amount of the contract.

17. ☑ **D.** The party that caused the delay is typically the party responsible for the delay. It would not be acceptable for the project manager to willingly cause a delay and then penalize the contractor because the project was late.

☒ **A, B,** and **C** are all incorrect. **D** is the best answer as it answers the question fully.

18. ☑ **B.** A single source seller means there is only one seller the company wants to do business with.

☒ **A** describes a "sole source" seller. **C** is incorrect; there may be multiple sellers that can satisfy the project needs. **D** is also incorrect; just because there is only one seller in the market does not mean the seller can adequately and fully fill the project needs.

19. ☑ **A.** The age of the contact at the seller should not influence the source selection. The experience of the person doing the work, however, can.

☒ **B, C,** and **D** are all incorrect, as technical ability, objective requirements (such as qualifications and certifications), and price can be valid evaluation criteria.

20. ☑ **B.** Henry intends to buy from the ABN Contracting Company.

☒ **A, C,** and **D** are all incorrect; these choices do not adequately describe the purpose of the letter of intent.

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☒ **A** and **B,** Request for Proposal and Request for Information, are documents from the buyer to the seller requesting information on completing the work. **C,** a proposal, does not list the price to complete the work, but instead offers solutions to the buyer for completing the project needs.

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☒ **A** is incorrect; procurement documents allow input from the seller to suggest alternative ways to complete the project work. **C** is incorrect; informing the performing organization on why the bid is being created is not the purpose of the procurement documents. **D** is not realistic.

23. ☑ **C.** Source selection happens during the Execution process group.

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24. ☑ **C.** For immediate work, a letter contract may suffice. The intent of the letter contract is to allow the vendor to get to work immediately to solve the project problem.

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create and approve. When time is of the essence, a letter contract is acceptable.

25. ☑ **C.** Any additional work is a change in the project scope. Changes to project scope should be approved by the mechanisms in the change control system. The stakeholder needs to approve the changes to the project scope.

☒ **A, B, and D** are not realistic expectations of the project. This questions border on the PMP Code of Professional Conduct. Typically, when a project scope has been fulfilled, the project work is done. The difference in this situation is that the additional tasks are optional requirements for the project scope.

1. Which of the following may be used as a risk mitigation tool?

   A. Vendor proposal
   B. Contract
   C. Quotation
   D. Project requirements

2. A contract cannot have provisions for which one of the following?

   A. A deadline for the completion of the work
   B. Illegal activities
   C. Subcontracting the work
   D. Penalties and fines for disclosure of intellectual rights

3. You are the project manager for the 89A Project. You have created a contract for your customer. The contract must have what two things?

   A. Offer and consideration
   B. Signatures and the stamp of a notary public
   C. Value and worth of the procured item
   D. Start date and acceptance of start date

4. The product description of a project can help a project manager create procurement details. Which one of the following best describes this process?

   A. A. The product description defines the contracted work.
   B. B. The product description defines the requirements for the contract work.
   C. C. The product description defines the contracted work, which must support the requirements of the project customer.
   D. D. Both parties must have and retain their own copy of the product description.

5. Yolanda has outsourced a portion of the project to a vendor. The vendor has discovered some issues that will influence the cost and schedule of its portion of the project. How must the vendor update the agreement?

   A. As a new contract signed by Yolanda and the vendor.
   B. As a contract addendum signed by Yolanda and the vendor.
   C. As a memo and SOW signed by Yolanda and the vendor.
   D. Project Management contracts have clauses that allow vendors to adjust their work according to unknowns.

6. The United States backs all contracts through which of the following?

   A. Federal law
   B. State law
   C. Court system
   D. Lawyers

7. Terry is the project manager of the MVB Project. She needs to purchase a piece of equipment for her project. The Accounting department has informed Terry she needs a unilateral form of contract. Accounting is referring to which of the following?

   A. SOW
   B. Legal binding contract
   C. Purchase Order
   D. Invoice from the vendor

8. Bonnie is the project manager for the HGH Construction Project. She has contracted a portion of the project to the ABC Construction Company. Bonnie has offered a bonus to ABC if they complete their portion of the work by August 30. This is an example of which one of the following?

   A. Project requirement
   B. Project incentive
   C. Project goal
   D. Fixed-price contract

9. The purpose of a contract is to distribute between the buyer and seller a reasonable amount of which of the following:

   A. Responsibility
   B. Risk
   C. Reward
   D. Accountability

10. Privity is what?

   A. Relationship between the project manager and a known vendor
   B. Relationship between the project manager and an unknown vendor
   C. Contractual, confidential information between customer and vendor
   D. Professional information regarding the sale between customer and vendor

11. Sammy is the project manager of the DSA Project. He is considering proposals and contracts presented by vendors for a portion of the project work. Of the following, which contract is least dangerous to the DSA Project?

   A. Cost plus fixed fee

B. Cost plus percentage of cost
C. Cost plus incentive fee
D. Fixed-price

12. In the following contract types, which one requires the seller to assume the risk of cost overruns?

A. Cost plus fixed fee
B. Cost plus incentive fee
C. Lump sum
D. Time and materials

13. Benji is the project manager of PLP Project. He has hired an independent contractor for a portion of the project work. The contractor is billing the project $120 per hour, plus materials. This is an example of which one of the following?

A. Cost plus fixed fee
B. Time and materials
C. Unit-price
D. Lump sum

14. Mary is the project manager of JHG Project. She has created a Statement of Work (SOW) for a vendor. For Mary's SOW to be a legal contract, what must be included?

A. Affidavit of agreement
B. Signatures of both parties agreeing to SOW
C. Signature of vendor
D. Signature of Mary

15. You are the project manager for a software development project for an accounting system that will operate over the Internet. Based on your research, you have discovered it will cost you $25,000 to write your own code. Once the code is written you estimate you'll spend $3,000 per month updating the software with client information, government regulations, and maintenance.

A vendor has proposed to write the code for your company and charge a fee based on the number of clients using the program every month. The vendor will charge you $5 per month per user of the web-based accounting system. You will have roughly 1,200 clients using the system per month. However, you'll need an in-house accountant to manage the time and billing of the system, so this will cost you an extra $1,200 per month.

How many months will you have to use the system before it is better to write your own code than to hire the vendor?

A. 3 months

B. 4 months
C. 6 month
D. 15 months

16. You are completing the closeout of a project to design a warehouse in Columbus, Ohio. The contract is a Cost Plus Incentive Fee contract. The target costs are $300,000, with a 10 percent target profit. However, the project came in at $275,000. The incentive split is 80/20. How much is the total contract cost??

    A. $300,000
    B. $275,000
    C. $310,000
    D. $330,000

17. A contract between an organization and a vendor may include a clause that penalizes the vendor if the project is late. The lateness of a project has a monetary penalty; penalty should be enforced or waived based on which one of the following?

    A. If the project manager could have anticipated the delay
    B. If the project manager knew the delay was likely
    C. Whether the delay was because of an unseen risk
    D. Who caused the delay and the reason why

18. A single source seller means what?

    A. There is only one qualified seller.
    B. There is only one seller the company wants to do business with.
    C. There is a seller that can provide all aspects of the project procurement needs.
    D. There is only one seller in the market.

19. Which one of the following is not a valid evaluation criterion for source selection?

    A. Age of the contact person at the seller
    B. Technical ability of the seller
    C. Contract requirements
    D. Price

20. Henry has sent the ABN Contracting Company a letter of intent. This means which one of the following?

    A. Henry intends to sue the ABN Contracting Company.
    B. Henry intends to buy from the ABN Contracting Company.
    C. Henry intends to bid on a job from the ABN Contracting Company.
    D. Henry intends to fire the ABN Contracting Company.

21. Martha is the project manager of the MNB Project. She wants a vendor to offer her one price to do all of the detailed work. Martha is looking for which type of document?

    A. RFP
    B. RFI
    C. Proposal
    D. IFB

22. Which one of the following is true about procurement documents?

    A. They offer no room for bidders to suggest changes.
    B. They ensure receipt of complete proposals.
    C. They inform the performing organization why the bid is being created.
    D. The project manager creates and selects the bid.

23. In what process group does source selection happen?

    A. Initiating
    B. Planning
    C. Executing
    D. Closing

24. You have an emergency on your project. You have hired a vendor that is to start work immediately. What contract is needed now?

    A. T&M
    B. Fixed fee
    C. Letter contract
    D. Incentive contract

25. You are the project manager for a seller. You are managing another company's project. Things have gone well on the project, and the work is nearly complete. There is still a significant amount of funds in the project budget. The buyer's representative approaches you and asks that you complete some optional requirements to use up the remaining budget. You should do which one of the following?

    A. Negotiate a change in the contract to take on the additional work.
    B. Complete a contract change for the additional work.
    C. Gain the approval of the project stakeholder for the requested work.
    D. Deny the change because it was not in the original contract.

Answers

1. ☑ **B.** Contracts can be used as a risk mitigation tool. Procurement of risky activities is

known as *transference;* the risk does not disappear, but the responsibility for the risk is transferred to the vendor.

⊠ **A, C,** and **D** are all incorrect. A vendor proposal, a quotation, and project requirements do nothing to serve as a risk mitigation tool.

2. ☑ **B.** A contract cannot contain illegal activities.

⊠ **A** is incorrect, as a contract can stipulate a deadline for the project work. **C** is incorrect; contracts can specify rules for subcontracting the work. **D** is also incorrect; a contract can assess a penalty and fines for disclosing intellectual rights and secret information.

3. ☑ **A.** Of all choices presented, **A** is the best choice. Contracts have an offer and a consideration.

⊠ **B** is incorrect, as not all contracts demand signatures and notary public involvement. **C** is incorrect; a contract may not explicitly determine what the value and worth of the procured product or service is. **D** is also incorrect; a contract may specify a start date, but the acceptance of the start date is vague and not needed for all contracts.

4. ☑ **C.** The product description defines the details and requirements for acceptance of the project. This information also serves as a valuable input to the process of determining what needs to be procured. The product description defines what the end result of the project will be. When dealing with vendors to procure a portion of the project, the work to be procured must support the requirements of the project's customer.

⊠ **A** is incorrect because the product description defines the product as a whole, not just the contracted work, which may be just a portion of the project. **B** is incorrect; the product description does not define the requirements for the contract work. **D** is also incorrect; the vendor likely will not have a copy of the product description..

5. ☑ **B** is the best answer of all the choices presented. Because the question is asking for the vendor to update the agreement, **B** is the best choice.

⊠ **A,** while feasible, is not the best answer to the question. A new contract does not update the original agreement and may cause delays, as the contract may have to be resubmitted, re-approved, and so on. **C** and **D** are not viable answers.

6. ☑ **C.** All contracts in the United States are backed by the US court systems.

⊠ **A, B,** and **D** are not correct answers.

7. ☑ **C.** A unilateral form of a contract is simply a purchase order.

⊠ **A, B,** and **D** are all incorrect choices. A SOW is a statement of work. A legal binding contract does not fully answer the question. **D,** an invoice from the vendor, is not what the purchasing department is requesting.

8. ☑ **B.** A bonus to complete the work by August 30 is an incentive.

⊠ **A** is incorrect, as the question does not specify August 30 as a deadline. **C** is incorrect, as "project goal" does not fully answer the question. **D** is incorrect because the contract details

are not disclosed in this question.

9. ☑ **B.** A fair contract shares a reasonable amount of risk between the buyer and the seller.

☒ **A** is incorrect; a contract may transfer the majority of the responsibility to the vendor. **C** is incorrect; the reward is not an appropriate answer to the question. **D** is also incorrect; the accountability of the services contracted to the vendor is not shared between the buyer and the seller.

10. ☑ **C.** Privity is a confidential agreement between the buyer and seller.

☒ **A, B,** and **D** are incorrect choices, as these choices do not fully answer the question.

11. ☑ **D.** A Fixed-Price contract contains the least amount of risk for a project. The seller assumes all of the risk.

☒ **A, B, C** are incorrect, because these contract types carry the risk of cost overruns being assumed by the buyer.

12. ☑ **C.** A Lump Sum is a fixed fee to complete the contract; the seller absorbs any cost overruns.

☒ **A** and **B** are incorrect because these contracts require the seller to carry the risk of cost overruns. **D** is incorrect because Time and Materials contracts require the buyer to pay for cost overruns on the materials and the time invested in the project work.

13. ☑ **B.** The contractor's rate of $120 per hour plus the cost of the materials is an example of a Time and Materials contract.

☒ **A** is incorrect; a Cost Plus Fixed Fee charges the cost of the materials, plus a fixed fee, for the installation or work to complete the contract. **C** is incorrect; a Unit-Price has a set price for each unit installed on the project. **D** is also incorrect, as a Lump Sum does not break down the time and materials.

14. ☑ **B.** An SOW can be a contract if both parties agree to the SOW and sign the document as a contract.

☒ **A, C,** and **D** are incorrect. **A** is incorrect as it does not fully answer the question. **C** and **D** are incorrect; individuals with the authority from both parties need to sign the SOW.

15. ☑ **C.** The monies invested in the vendor's solution would have paid for your own code in six months. This is calculated by finding your cash outlay for the two solutions: $25,000 for your own code creation, and zero cash outlay for the vendor's solution. The monthly cost to maintain your own code is $3,000. The monthly cost of the vendor's solution is $7,200. Subtract your cost of $3,000 from the vendor's cost of $7,200 and this equals $4,200. Divide this number into the cash outlay of $25,000 to create your own code and you'll come up with 5.95 months. Of all the choices presented, **C**, six months, is the best choice.

☒ **A, B,** and **D** are all incorrect as they do not answer the question.

16. ☑ **C.** The total contract cost is $310,000. Here's how the answer is calculated: target cost is $300,000. The ten percent profit is $30,000. The finished cost was $275,000, a difference of $25,000 between the target and the actual. The contract calls for an 80/20 split if the contract

comes in under budget. The formula reads finished costs + profit margin + (.20 X under budget amount).

☒ **A, B,** and **D** are all incorrect as these choices do not reflect the amount of the contract.

17. ☑ **D.** The party that caused the delay is typically the party responsible for the delay. It would not be acceptable for the project manager to willingly cause a delay and then penalize the contractor because the project was late.

☒ **A, B,** and **C** are all incorrect. **D** is the best answer as it answers the question fully.

18. ☑ **B.** A single source seller means there is only one seller the company wants to do business with.

☒ **A** describes a "sole source" seller. **C** is incorrect; there may be multiple sellers that can satisfy the project needs. **D** is also incorrect; just because there is only one seller in the market does not mean the seller can adequately and fully fill the project needs.

19. ☑ **A.** The age of the contact at the seller should not influence the source selection. The experience of the person doing the work, however, can.

☒ **B, C,** and **D** are all incorrect, as technical ability, objective requirements (such as qualifications and certifications), and price can be valid evaluation criteria.

20. ☑ **B.** Henry intends to buy from the ABN Contracting Company.

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21. ☑ **D.** An IFB is typically a request for a sealed document that lists the seller's firm price to complete the detailed work.

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