

KnowledgeWoods – PMP® Green Book

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Baseline Assessment

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. Setting up a new power plant
 - 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. You are a project manager working on a project to market a new product. The deliverables of the project have been established and the project work has begun. A contract to deliver the deliverables has been signed. The customer who has signed the contract has telephoned you to request additional work to be done on the project. This work will affect the budget but not the schedule of the project. This project has a high priority with your company. What should you do next?
 - A. Do what the customer asks you to do and add the additional requirements to the original contract
 - B. Refuse the request and send a memo to your management explaining the situation
 - C. Respond to the customer's request by explaining the change procedure and asking that he or she submit a request for change
 - D. Arrange to meet with the project team to discuss this change

4. What is closest to the definition of '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

5. John has received an information, that an item he is purchasing for a project will be delayed. What should he do first?
- A. Replan the project to accommodate the delay
 - B. Notify his manager
 - C. Meet the customer to inform them about the delay, and identify options
 - D. Meet with the team and find alternatives
6. 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. Validate the project scope
7. You are parallel managing a sub-project element of Advertising Specialties. 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
8. Of the following, which is a mathematical model that can be used in assembling a project budget?
- A. Pareto formulas
 - B. Parametric Modeling
 - C. Crashing
 - D. EVM

9. The company-wide policy that mandates all project quality is called what?
- A. Quality planning
 - B. Quality control
 - C. Quality policy
 - D. ISO 9000
10. Which of the following can help the project manager to accelerate the project towards completion?
- A. Project schedules
 - B. EVM
 - C. Lectures and motivational speeches
 - D. Approved incentives
11. Sam is the project manager for a large, complex 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
12. 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
13. Of the following, what does the project manager typically do the most of?
- A. Communications
 - B. Budget management
 - C. Project organization
 - D. Managing team negotiations

- 14.** A program can best be described in which of the following ways?
- A. A very large, complex project
 - B. A collection of sub-projects with a common goal
 - C. A collection of projects structured to provide efficiency gains
 - D. A collection of subprojects with a common customer
- 15.** 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. Program management
 - C. Project Portfolio Management
 - D. Management reserve
- 16.** If you are writing a proposal for additional funding, which communication style should you choose?:
- A. Formal and Horizontal
 - B. Formal & Vertical
 - C. Informal and Vertical
 - D. Informal & Horizontal
- 17.** A project manager is employed by a construction company and is responsible for the furnishing of the completed building. The project is created and project manager is assigned to newly won project. One of the first things that the project manager for this project should do is:
- A. Create the Work Breakdown Structure
 - B. Identify Stakeholders
 - C. Develop Project charter
 - D. Develop Project Management Plan
- 18.** The project life cycle is comprised of which of the following?
- A. Phases
 - B. Milestones
 - C. Estimates
 - D. Activities

- 19.** 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
- 20.** 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
- 21.** 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
- 22.** Henry, the project manager of the ABC 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. Critical chain
- 23.** Tracy 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

- 24.** Where can a project manager expect to receive templates?
- A. Commercial databases
 - B. The project management office
 - C. The project sponsor
 - D. Project management information system
- 25.** From a process perspective, 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

Baseline Test - Answers

1	C
2	D
3	C
4	C
5	D
6	D
7	B
8	B
9	C
10	A
11	D
12	D
13	A
14	C
15	C
16	B
17	B
18	A
19	D
20	D
21	A
22	B
23	A
24	B
25	C

Exercise No 1.1 : Operations vs. Project

Identify which of these scenarios are operations, and which are projects?

Question	Description	Type
1	Building an extension block of a mall.	
2	Shelving CDs and DVDs in a music store.	
3	To bake a large loaf of bread for the Guinness Book of World Records.	
4	Compiling and testing code for go Live of phase1.	
5	Polishing shoes twice per week.	
6	Shifting operations from an older office to new location.	

Answer | Exercise No 1.1 : Operations vs. Project

Question	Description	Type
1	Happening just once to achieve a unique goal and hence is a project	Project
2	Shelving CDs and DVDs in a music store. It is a recurring activity.	Operations
3	Baking a large loaf of bread for Guinness Book of World Record. Happening just once to achieve a unique goal and hence is a project.	Project
4	Compiling and testing code for go live phase1. Go live phase 1 is a unique deliverable.	Project
5	Polishing shoes twice per week. This is a recurring activity.	Operations
6	Shifting operations from an older office to new location. This occurs just once to achieve a unique goal and hence is a project.	Project

Exercise No 1.2 : Project, Program or Portfolio

Please specify whether of the following scenarios represent a project, a program or a portfolio.

Question	Description	Type
1	A retail company wanted to initiate a new line of products to target the teen market segment in order to increase sales. They initiated several company-wide projects to boost the sale of the new product line.	
2	A company wanted to switch from a manual sales management process to an automated process using identified software. Management evaluated a few solutions that cater to their requirements and decided to proceed with automation.	
3	A shoe manufacturing company wants to build its online presence. They initiated various marketing campaigns, spruced up the content of their website, and updated their product brochures.	
4	An IT company had many projects, each needing resources with Business Intelligence (BI) skills; however, there are few such individuals available. So all such projects were combined in order to use these resources more efficiently.	
5	A company wanted to automate their Management Information System (MIS) to generate monthly departmental reports. This would help ensure better coordination and retrieval of information at year-end.	
6	Real Estate Company's housing project proposal was accepted for construction of 1000 apartments – a mix of 2 Bed room apartment and 3 bed room apartment. The time to complete is 3 years.	

Answer | Exercise 1.2 : Project, Program or Portfolio

Question	Description	Type
Answer 1	Aligned with company's goal hence it is a portfolio.	Portfolio
Answer 2	It's a unique endeavor and will end as soon as manual processes get migrated to the automated process.	Project
Answer 3	The company has a goal to build its online presence. Various initiatives (which could be portfolios, programs, projects, or operations) along these lines will help achieve the company goal.	Portfolio
Answer 4	Efficiently utilizing resources across projects hence is a program.	Program
Answer 5	It's a unique endeavor and will end as soon as the Management Information System is launched.	Project
Answer 6	The housing project is a unique project, is a temporary endeavor, and will produce a unique deliverable.	Project

Exercise No 1.3 : Organization Types

Map Organization types: Functional, Matrix and Projectized

S No	Situation	Organization
1	Teams are structured as per their specialty	
2	Team has more than one boss	
3	Project manager has the highest authority as compared to other types of organizations	
4	Project manager and functional manager share responsibilities	
5	Functional manager takes decisions on projects; coordination happens between functional heads.	
6	Team is adjourned once project is over which may impact the organizational hierarchy	

Answers | Exercise No 1.3: Organization Types

S No	Organization
1	Functional
2	Matrix
3	Projectized
4	Matrix
5	Functional
6	Projectized

Exercise No 1.4 : OPA Vs. EEF

Identify which one of them are examples of enterprise environmental factors or organizational process assets.

Scenario	Description	Type
1	One of the team members in your project always comes late to office and leaves early. You, as a project manager, have shared feedback with him several times still there is no improvement. You now want to take action. So, you refer your company's HR policy.	
2	You have been assigned to a new project. You have received the Project Charter, and have identified the stakeholders. The next step is to develop the Project Management Plan. You look for the Project Management Plan template.	
3	You work as a project manager in an IT company. You are the in-charge of a website development project. Your project was scheduled to complete next month. However, the development will take another two weeks to complete. After that, testing will require another month. You have asked your project team to put in 20 more hours every week. To implement it, you referred to your company's work-hour standards.	
4	You are starting off with a new project, while creating a project plan, you look at historical information.	
5	You look at late hour working conditions and regulations for female employees, and you find that government regulations require that a female member needs to be escorted after 7 pm and plan accordingly.	

Answers | Exercise No 1.4 : OPA Vs. EEF

Identify which one of them are examples of Enterprise Environment Factors or Organizational Process Assets.

Scenario	Answer	Type
1	Company HR Policy is specific to the internal environment of the performing organization.	EEF
2	The Project Management Plan template is a part of the knowledge base of the performing organization.	OPA
3	Work-hour standards are specific to the internal environment of the performing organization.	EEF
4	Historical Information is a part of the knowledge base specific to the performing organization.	OPA
5	Government regulations are specific to the external environment of the performing organization.	EEF

Exercise No 1.5 : Organization Types

Please identify which organization structure is represented by interviewer:

- Functional
- Projectized
- Matrix

Question	Description	Type
1	We are looking for a resource that can work with our Development Team. You will be expected to keep a track of status meetings, take notes, and maintain documents. In case you face any problem, you need to run it by the development manager.	
2	We are a real estate company and are looking for a person who could manage all work from start to end. You will work closely with the client to collect the requirements, acquire the team, develop scope and estimate time. You will also expect to communicate with all the people involved in the work. It would be you who would be responsible for success of the project.	
3	We have just received a website development project. We need somebody who has expertise in graphics and design and can work with their learning department manager on this project. You will be responsible for control of the scope, schedule, and cost. You will also be responsible for managing the deliverables. The programming manager, on the other hand, will control the resources.	
4	We want a person who will manage the development of an inventory management system. You will manage three different teams, communicate with all stakeholders, and ensure that the inventory management system meets the requirements. You will also be responsible for completing the work on time and within the budget. You will be the one who will be responsible for the project. And yeah! It's you whose neck is on line in case of any failure!	

Answer | Exercise No 1.5 : Organization Types

Question	Description	Organization Type
1	The development manager is the head of the department holding the authority. The project manager's role is more of a note taker.	Functional
2	The project manager will have full authority over the project, and will control project-related aspects.	Projectized
3	The project manager will share authority with the functional manager.	Matrix
4	The project manager will have full authority over the project and will control project-related aspects. The project manager will be the one responsible for the success or failure of the organization's effort.	Projectized

Exercise No 1.6 : Information Types

Identify the Information Type from:

- Work Performance Data
- Work Performance Information
- Work Performance Report

S.No.	Description	Information Type
1	Actual costs	
2	Actual durations	
3	Electronic dashboards	
4	Forecasted estimates to complete	
5	Implementation status for change requests	
6	Information notes	
7	Justifications	
8	Memos	
9	Number of change requests	
10	Number of defects	
11	Start and finish dates of schedule activities	
12	Status of deliverables	
13	Status reports	

Answers| Exercise No 1.6 : Information Types

S.No	Description	Information Type
1	Actual costs	Work performance data
2	Actual durations	Work performance data
3	Electronic dashboards	Work performance report
4	Forecasted estimates to complete	Work performance information
5	Implementation status for change requests	Work performance information
6	Information notes	Work performance report
7	Justifications	Work performance report
8	Memos	Work performance report
9	Number of change requests	Work performance data
10	Number of defects	Work performance data
11	Start and finish dates of schedule activities	Work performance data
12	Status of deliverables	Work performance information
13	Status reports	Work performance report

Exercise No 1.7 : Assessment Test

- 1)** Which of the following is not accurate about the initial phase of a project?
 - a) The highest uncertainty is at this stage of the project
 - b) The expenditures associated at the beginning of the project is highest
 - c) Stakeholders have maximum influence during this phase
 - d) Staffing levels are the lowest at this stage

- 2)** Which of the following statements depicts a project?
 - a) Installing weekly anti-virus updates
 - b) To move a finance application from a Unix environment to a Microsoft operating system
 - c) Troubleshooting a server for a known issue
 - d) Server backup

- 3)** Nancy is engaged in the construction of three unique office buildings. Although construction sites are located in various places, she has been managing each team very efficiently to complete the work on time and within the budget. Which of the following statements describe the effort that Nancy is doing?:
 - a) Construction of each building is an operational work because it is repetitive in nature
 - b) The building construction is considered neither as a project nor as an operational work
 - c) Construction of all three buildings is considered as one project
 - d) Construction of each building is a project because each building is unique in nature

- 4)** Jack, Rusty, Nicole and Stacy are project managers working for an IT firm. In an informal coffee session, they are discussing a few things. Jack complains that it is very difficult to manage a project in the company. Rusty complains that the stakeholders make too many amendments – some of which are necessary, but a few are not. Stacy also throws some light on an uncooperative environment that exists in the company. However, Nicole wants to understand the advantages of the matrix organization as compared to a functional organization. Which of the following statements is TRUE for matrix organizations?
- a) The project manager's control over resources is better than in a projectized organization
 - b) The team report to two bosses
 - c) Smoother communication when compared to projectized environments
 - d) The project manager has no authority
- 5)** What is the major disadvantage of a projectized organization?
- a) Many bosses to whom one reports
 - b) Lack of devotion toward the project as compared to functional organizations.
 - c) The functional manager is the main reporting manager
 - d) Specialization may be compromised to achieve more agility and control on projects as compared to functional organizations.
- 6)** Jack is appointed as the project manager of an automated recruitment project. However, he discovers that it is difficult to get the desired level of focused approach from the team as they are more interested in completing their daily work. Moreover, he has to go to a functional manager for every decision he makes. Can you tell us which type of organization is Jack working in?
- a) Functional
 - b) Matrix
 - c) Projectized
 - d) Composite

- 7)** Lilly has been appointed as the project manager of an IT project. Hers is a matrix organization. So, she identified that her team:
- a) Will report to her
 - b) Will report to a functional head
 - c) Will be motivated
 - d) Will report to both a functional head as well as a project manager
- 8)** You are appointed as a team member in a functional organization. Whom would you report to?
- a) Project manager
 - b) Functional Manager
 - c) Project Expediter
 - d) Project coordinator
- 9)** You are appointed as a team member in a projectized organization. Who do you think will give you directions?
- a) The project manager
 - b) The functional manager
 - c) The team
 - d) The project coordinator
- 10)** Which one of the following is NOT TRUE about a project:
- a) It is temporary
 - b) It has a definite start and end
 - c) It has Interrelated activities
 - d) It repeats monthly

Answer | Exercise No 1.7 : Assessment Test

Answer 1: B

Explanation: At the initial stage of a project, the cost expenses are typically low.

Answer 2: B

Explanation: A project has a definite start and end date, is temporary, and exists to create a unique product or service. In this case, only the second option fits the criteria. Hence, second option is the correct one. Answer C could be confusing but the words “known issue” mean that it has happened before and is not unique.

Answer 3: D

Explanation: Projects are temporary and unique in nature where as operational work is repetitive in nature. Since Nancy is working to construct three unique buildings and each has a definitive beginning and a definitive end, each effort is considered as a project..

Answer 4: B

Which of the following statements is NOT TRUE for matrix organizations? Let's understand the answers:

- The project manager's control over resources is better than in a projectized organization - Not True
- The team will report to two bosses - True
- Smoother communication results as compared to a projectized environment - Not True
- The project manager has no authority - Not True

Answer 5: D

Explanation: The team gets dispersed after project completion and there is no particular department where they can return to. This in turn leads to project members being allocated to different available projects and over time the team member may lose the knowledge depth they formerly had.

Answer 6: A

Explanation: Functional organization, as the project manager does not have any authority to make decisions.

Answer 7: D

Explanation: In matrix organizations, the project teams report to both a functional manager and a project manager.

Answer 8: B

Explanation: In a functional organization, the authority to direct the team rests with the functional manager. Typically, there is no project manager in functional organizations as a role and hence choice A is not valid.

Answer 9: A

Explanation: In a projectized organization, the authority to direct the team rests with the project manager

Answer 10: D

Explanation: Option D is operations

Exercise No 2.1 : Assessment Test

1. Your organization has recognized a need to replace the legacy manufacturing system with a modern software application to reduce delivery delays and process downtime. Your IT director anticipates a project to fulfill this business need, however, he warns that the new project's budget cannot exceed \$75,000 due to shortages in the department budget. He also indicates that no additional staff will be allocated to this project other than the existing IT staff. If you are assigned as a project manager to this project, you would document these initial project conditions as:
 - a. Project assumptions in the project charter
 - b. Project restrictions in the project management plan
 - c. Project constraints in the project charter
 - d. Project conditions in the project cost management plan and human resource management plan
2. Lisa has been assigned a new project and has been given the Project Charter. What should Lisa do FIRST?
 - a. Develop the Project Scope Statement
 - b. Identify all stakeholders
 - c. Perform Risk Analysis
 - d. Start working on the Project Management Plan
3. Jack has just taken over a project. He finds out that the previous project manager created the Stakeholder Register and Stakeholder Management Strategy documents. He has asked you what the "Identify Stakeholder" process is all about. What should you tell him?
 - a. It is the process of making relevant information available to stakeholders as planned.
 - b. It is the process of defining project stakeholder information needs and defining a communication approach.
 - c. It is the process of identifying all people or organizations impacted by the project and documenting relevant information regarding their interest, involvement and impact on project success.
 - d. It is the process of communicating and working with stakeholders to meet their needs and addressing issues as they occur.

4. You are currently working as a project manager in Realty Logistics. You have been given responsibility for moving the Infrastructure of ABC Software LTD to their newly procured office in Los Angeles. You are currently identifying your project stakeholders. You have created the Power/Interest Grid. Which of the following types of stakeholder expectations should be closely managed?
- a. High Power - Low Interest
 - b. High Power - High Interest
 - c. Low Power - Low Interest
 - d. Low Power - High Interest
5. Henry is working as a project manager in DeltaSoft.com. He is currently performing stakeholder analysis for the first time. Which process group is he currently working in?
- a. Initiating
 - b. Planning
 - c. Executing
 - d. Monitoring and Controlling
6. Arnold is working as a project manager in KWSoft.com. He is currently identifying his project stakeholders. He has created the Power/Interest Grid. On which of the following types of stakeholders should he spend least amount of time to managing?
- a. High Power - Low Interest
 - b. High Power - High Interest
 - c. Low Power - Low Interest
 - d. Low Power - High Interest
7. When is the right time to perform stakeholder analysis in a project?
- a. Initiating
 - b. Planning
 - c. Executing
 - d. Throughout project life cycle

- 8.** Leonard is working as a project manager in Soft.com. The CIO had a meeting with Leonard, and explained to him the key objectives, general time frame, and business value of a recent project that the company has won. The CIO assigns the project to Leonard. What should be Leonard's first step?
- a.** Start project execution
 - b.** Begin developing the scope statement
 - c.** Determine the key stakeholder and have a kickoff meeting
 - d.** Compile an exhaustive list of stakeholders and seek meetings with them
- 9.** When a project is being performed under contract, the SOW is provided by which of the following?
- a.** The buyer
 - b.** The project sponsor
 - c.** The project manager
 - d.** The contractor
- 10.** You work for a large manufacturing plant. Your firm is thinking of initiating a new project to release an overseas product line. This is the company's first experience in the overseas market, and it wants to make a big splash with the introduction of this product. The project entails producing your product in a concentrated formula and packaging it in smaller containers than the U.S. product uses. A new machine is needed in order to mix the first set of ingredients in the concentrated formula. Which of the following actions is the next best step the project manager should take?
- a.** The project manager should document the project's high-level requirements in a project charter document and recommend that the project proceed.
 - b.** The project manager knows the project is a go and should document the description of the product in the statement of work.
 - c.** The project manager should document the business need for the project and recommend that a feasibility study be performed to determine the viability of the project.
 - d.** The project manager should document the key stakeholders and their potential impacts in the stakeholder register.

Answer | Exercise No 2.1 : Assessment Test

Answer 1: C

Explanation: The budget restrictions and staffing restrictions must be known early in the project. These restrictions are also known as constraints which form the boundary of the project. Constraints must be documented as early in the project as possible. Since Project charter is the first document prepared in the project, all constraints must be recorded in the project charter to get an agreement from stakeholders. Hence, you must document these conditions as project constraints in the project charter.

Answer 2: B

Explanation: All processes in the Initiating Process Group are performed in sequence. Therefore, after the Project Charter is complete the first thing to do is identify stakeholders, the results of which will be applied in planning processes.

Answer 3: C

Explanation: Identify Stakeholders is the process of identifying all people or organizations impacted by the project and documenting relevant information regarding their interest, involvement and potential impact on project success. Hence, C is the correct answer.

Answer 4: B

Explanation: Stakeholders with high power and high interest should be managed closely. Hence, B is the correct answer.

Answer 5: A

Explanation: Stakeholders analysis is done in early in the project and then re-assessed on a continuing basis in the controlling processes.

Answer 6: C

Explanation: Stakeholders with low power and low interest should be given the least amount of attention. Hence, Option C is the correct answer.

Answer 7: D

Explanation: Stakeholders analysis is a continuous process that is performed throughout the project life cycle. Hence, D is the correct answer.

Answer 8: D

Explanation: The first step after the project is assigned is to determine as many stakeholders as possible and perform stakeholder analysis in order to ensure adequate coverage. The meeting with stakeholders will help to identify their interest level and other aspects used for stakeholder analysis.

Answer 9: A.

Explanation: The buyer provides the SOW when projects are performed under contract.

Answer 10: C.

Explanation: The most correct answer is to perform a feasibility study. Since this project is taking the company into a new, unknown market, there's lots of potential for error and failure. A feasibility study would help the stakeholders determine whether the project is viable and cost effective and whether it has a high potential for success.

Exercise No 3.1 : Decision Making Techniques

Identify the decision-making technique used in the following scenarios. The decision-making techniques are:

- Unanimity
- Plurality
- Majority
- Dictatorship

Question	Description	Type
1	XYZ Pvt. Ltd. wanted to deploy ERP in their organization, and they discussed on various modules that should be deployed. They brainstormed on modules like sales, human resource, customer relationship, accounts. All the stakeholders agreed that sales is a module which should be deployed first.	
2	Because the go live is planned for next week, the project manager took charge and asked everyone to remain until all the bugs in the software are closed and verified with client team.	
3	Your company is into development of online games. The marketing team wanted to choose a certain avatar for their new online game. They identified 3 probable options. To select the appropriate avatar the team decided to vote. They selected the avatar which got the most votes, however, 35% and 20% of the votes were for the other two options respectively.	
4	XYZ Pvt. Ltd. wanted to deploy ERP in their organization, and they discussed on various modules that should be deployed. They brainstormed on modules like sales, human resource, customer relationship, accounts. More than half of the stakeholders agreed that accounts is a module which should be deployed. So the decision was made accordingly.	

Answer | Exercise No 3.1: Decision Making Techniques

Question	Description	Type
1	Since all agreed that sales module should be deployed first, it is 100% agreement.	Unanimity
2	The project manager took charge and asked everyone to remain until all of the bugs in the software are closed and verified with client team The PM decided for the whole team.	Dictatorship
3	The avatar that is selected got the most votes (<50%), though not a majority vote.	Plurality
4	More than half, which means more than 50% agreement is there that the accounts module should be deployed.	Majority

Exercise No 3.2: Requirement gathering techniques

Identify which techniques have been used in following scenarios:

- Idea/ mind mapping
- Affinity Diagram
- Nominal group technique
- The Delphi technique
- Facilitated workshop

Question	Description	Type
1	The product team of an IT company meets to generate ideas for the launch strategy of a new product that they have developed. The group meets, generates ideas, and puts them together into relevant categories.	
2	A big telecom company is planning an expansion. The project manager sought responses from a group of experts, He used email so that the group members would not influence each other's responses.	
3	An IT company is going to implement enterprise resource planning software in their company. They want to organize a discussion with the stakeholders to gather ideas about the desired features of the software solution. The ideas generated in the discussion are captured and represented pictorially for further analysis.	
4	The team got together to thrash out ideas for their intranet. People who participated were from the finance, IT and marketing departments. Since there were so many senior heads, the CIO controlled the discussion.	

Answer | Exercise No 3.2: Requirement gathering techniques

Question	Description	Type
1	<p>The product team of an IT company meets to generate ideas for the launch strategy of a new product that they have developed. The group meets, generates ideas, and puts them together into relevant categories.</p> <p>Categorizing the similar ideas together is done on an affinity diagram.</p>	Affinity Diagram
2	<p>A big telecom company is planning an expansion. The project manager sought responses from a group of experts, He used email so that the group members would not influence each other's responses.</p> <p>Reaching out to experts anonymously is the Delphi technique.</p>	The Delphi technique
3	<p>An IT company is going to implement enterprise resource planning software in their company. They want to organize a discussion with the stakeholders to gather ideas about the desired features of the software solution. The ideas generated in the discussion are captured and represented pictorially for further analysis.</p> <p>Mind Mapping is to show the idea pictorially.</p>	Idea/ mind mapping
4	<p>The team got together to thrash out ideas for their intranet. People who participated were from the finance, IT and marketing departments. Since there were so many senior heads, the CIO controlled the discussion.</p> <p>A group comprised of people from different domains is a facilitated workshop.</p>	Facilitated workshop

Exercise No 3.3: Product vs. Project Scope

The marketing company called Info – Nitro was doing a campaign for WWF -5 (a boxing series games). They wanted to send mailers and advertise on TV as well as use online channels (Facebook and Twitter) to reach the target audience.

Please categorize each of the following items as part of either:

- Product scope
- Project scope

Question	Description	Type
1	Mailers	
2	Designing mailers	
3	Testing the mailer design to fit the screen of iPods.	
4	Facebook page and company logo	
5	Testing the Facebook page on the Samsung Galaxy	
6	Planning for all activities	

Answer | Exercise No 3.3: Product vs. Project Scope

Question	Description	Type
1	Mailers It was a customer requirement.	Product Scope
2	Designing mailers To use mailers, the project team needs to design them. This is work required to deliver the product scope.	Project Scope
3	Testing the mailer design to fit the iPod screen. To use mailers, the project team needs to design them. This is work required to deliver the product scope.	Project Scope
4	Facebook page and company logo It was a customer requirement.	Product Scope
5	Testing the Facebook page from the Samsung Galaxy This is the work required to attain the customer requirements.	Project Scope
6	Planning for all activities. This is the work required to attain the customer requirements.	Project Scope

Exercise No 3.4 : Assessment Test

1. You work as a project manager in a construction company. You are working on the development of the WBS for a project. While doing that, you suggest that your team members use a certain numbering system for the WBS. You suggested this because the WBS numbering system allows project team members to:
 - A. Estimate the costs of WBS elements
 - B. Identify WBS Items uniquely
 - C. Estimate project completion dates
 - D. Identify configuration management milestones

2. Scope decomposition in a WBS can be achieved by:
 - A. Only an expert
 - B. Group discussions with the team and other stakeholders
 - C. The project manager only as he is the one responsible for the project planning
 - D. The client

3. You worked with your team to brainstorm on various alternatives to achieve a particular feature. After that, you ranked all the ideas in the order of importance. Which of the following techniques have you used to come up with it?
 - A. Alternative identification
 - B. Brainstorming
 - C. Nominal group technique
 - D. An affinity diagram

4. In an IT company, a project 'X' is being initiated . The project is a typical software development effort. There are more than 30 stakeholders, and nobody is agreeing on the project objectives. One of the stakeholders believes that the project can achieve a 30 percent improvement whereas another stakeholder believes that an improvement of 50 percent is possible. To top it all, the project manager thinks that a 10 percent improvement is a realistic figure to hit. What will be the best course of action here?
- A. Perform a feasibility analysis
 - B. Average the numbers and use that as the goal
 - C. Ask the Change Control Board to take the final decision
 - D. Move forward with the project as is
5. You are working on a new project to develop a new wireless product. The objective is to incorporate user-friendly features recommended by customers. The features that will be incorporated haven't been finalized yet. There is a focus group that will continue to evaluate the product features as the project goes forward. The focus group is authorized to suggest changes along with the engineers and the quality department. Which of the following will help you the most to minimize the effects of these changes on the project?
- A. A change management plan
 - B. A scope management plan
 - C. Do not continue with the project until all the features are clearly defined
 - D. This is expected in any project. A good project manager will have a communications plan in place to make sure everyone knows what is happening on the project.
6. Connie, a marketing manager in a toy manufacturing company, is working on the launch of a new red-haired doll (in the month of January) set to release on the eve of Christmas. This means it needs to be ready to market by the February Toy Fair, where toy retailers make their choices about what toys to buy for the next year. The project manager for the toy development is in the process of ensuring the toy meets federal safety standards, which it does, but the product is running into a problem with additional non-federal safety issues that are only now being uncovered. Identify the assumption, constraint, and product description the project manager needs to document in the scope-supporting details.
- A. Assumption: The product must be ready for the market in February; Constraint: Product meets safety standards. Product Description: Includes the fact that it is a Christmas toy
 - B. Assumption: Federal safety regulations are sufficient for a safe toy; Constraint: The product must be market ready by February; Product Description: The toy is a red-haired doll.

- C. Assumption: The project manager is responsible for the product's safety results; Constraint: The toy must meet federal safety standards; Product Description: The product is a toy.
 - D. Assumption: Non-federal safety issues might come up; Constraint: The toy must be sold at Christmas; Product Description: The toy must appeal to toy retailers.
7. The AAA Cleaning Service Company is in the process of developing and marketing a new yearly bundled package of cleaning services to be available in its eastern division and has assigned Bob Brown to be the project manager for the new product rollout. There are just a few major deliverables: Develop new contracts, create an advertising campaign, provide service training, and update the ordering system to handle the new product. Management has agreed to Bob's summary of tasks and expectations, but wants Bob to tell them how much he thinks the project will cost and how long it will take to do the rollout because marketing is anxious to begin preselling the service. What should Bob do first?
- A. Quit. There is not enough information for Bob to be successful in this rollout.
 - B. Develop a scope statement so that he is certain he has the project well defined.
 - C. Create a work breakdown structure of the tasks to be done which can further be used for estimation.
 - D. Give an estimate of six months and \$250,000 based on his prior work on other projects in different fields.
8. Ralph is a quality control reviewer for all projects at a large clothing manufacturer. He has reviewed Sally's project and feels that the cost accuracy and duration estimates need to be improved and that the projects projected end date is too far into the year. What should Sally do first?
- A. Re- interview the subject matter experts (SMEs) and asks for better estimates.
 - B. Re-examine the WBS to see if it can be further decomposed to allow better estimations of cost and duration.
 - C. Tell Ralph the estimates are sufficient. He is just a quality control guy and has no real understanding of her project.
 - D. Reduce all the cost and time estimates by 10 percent based on Ralph's feedback.

9. Which of the following BEST describes the relationship between the work breakdown structure and deliverables?
- A. The work breakdown structure encompasses deliverables.
 - B. The deliverables encompass the work breakdown structure.
 - C. The work breakdown structure is a part of Planning Process Group and deliverables are part of the Monitoring and Controlling Process Group.
 - D. The work breakdown structure is a part of the Planning Process Group and deliverables are part of Closing Process Group.
10. To gather some more details on the customer requirement, you mailed several stakeholders, as you needed information quickly from more than 1000 people in next two days. Which technique is being used?
- A. Interviews
 - B. Delphi
 - C. Nominal group technique
 - D. Survey

Answer | Exercise No 3.4: Assessment Test

Answer 1: B**Explanation:**

The WBS numbering system helps to identify WBS items uniquely.

Answer 2: B**Explanation:**

The team and other stakeholder should be involved to identify WBS items as this would help in getting team buy in and result in much more adequate coverage of scope.

Answer 3: C**Explanation:**

The nominal group technique is used to rank the ideas.

Answer 4: A**Explanation:**

The project manager should always focus on understanding the requirements of his stakeholders. In this situation, the project manager should do a feasibility study before taking any steps. The best option is A.

Answer 5: B**Explanation:**

Answer B is correct. Answer A is tempting because the problem focuses on changes. However, because we are talking about the elaboration of the product's characteristics, we are talking about scope changes, and therefore Answer B is the best answer. Answer C is also tempting because it is difficult to move forward on a project until the scope is clearly defined (especially in systems development projects), but with products and certain types of Web development, scope changes can be frequent, and a formal scope management plan is needed. Answer D is true from a project perspective, but does not address the scope issues.

Answer 6: B**Explanation:**

Answer B is correct. This is an example of a PMI PMP® exam question that tells you what the work product or output is, but expects you to know how to use business knowledge to apply to the question. Arguments can be made for many assumptions, but in this case, the best answer is Answer B. The biggest assumption, and an incorrect one (which might have been avoided had it been stated), was that federal safety standards were sufficient to make a toy safe. The constraint is the time frame in which the toy must be ready, and part of the product description should include that the toy is a red-haired doll.

Answer A is incorrect because the statement "the product must be ready for the market in February" is a constraint and not an assumption. Answer C is incorrect because the statement "the product is a toy" does not provide enough information to be considered a product description. Answer D is incorrect because the statement "the toy must appeal to toy retailers" is not a product description.

Answer 7: C

Explanation:

Answer C is correct. Bob has a pretty clear scope and defined deliverables. In order to be able to estimate project cost and time, the next step would be to create a work breakdown structure of the deliverables decomposed into component tasks. Answer A is incorrect because even though Bob doesn't have a lot of information at this point, as a project manager, it is his job to progressively elaborate the project. Answer B is incorrect because Bob's summary of tasks and expectations is essentially his scope statement. Answer D is incorrect because Bob cannot rely solely on his personal experience to deliver an accurate cost and time estimate

Answer 8: B

Explanation:

Answer B is the best answer. Although it might be true that Ralph does not have the insight into her project, Sally's first step should be to review the WBS and be sure it is at a sufficient level of detail to provide the accuracy of estimates. Answer A is incorrect because re-interviewing SMEs does not address the root of the problem. Sally can do so after she has examined the WBS. Answer C is incorrect because a good project manager will always want to produce the best quality project, and the quality control function—if it is auditing a project—probably has some knowledge of the corporate projects and general expectations. Answer D is incorrect, although it does happen often in real life.

Answer 9: A

Explanation:

Answer A is correct. The Work breakdown structure's last nodes/leafs are deliverables. Hence A is the correct answer.

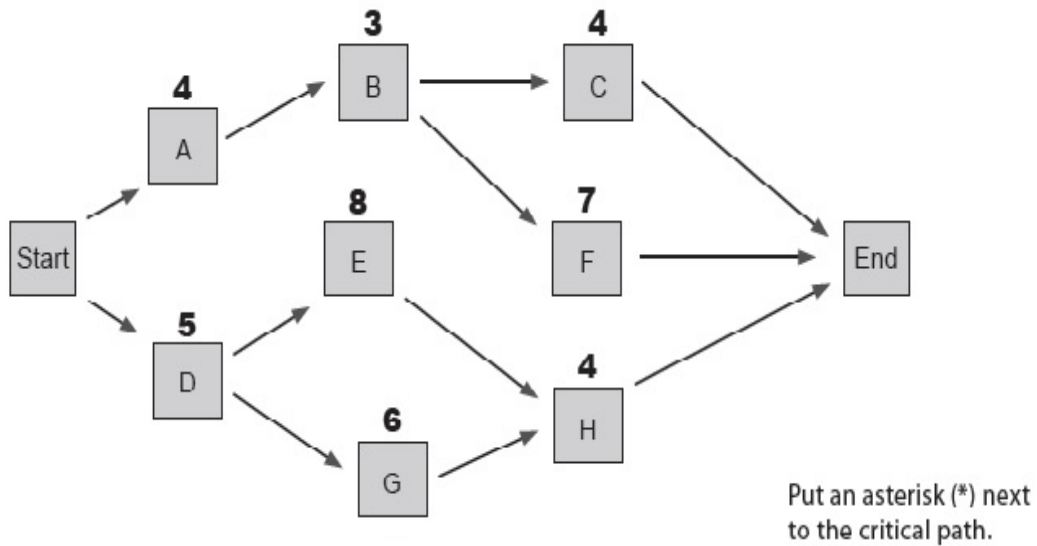
Answer 10: D

Explanation:

To reach out to a wider audience in a shorter timeframe, the best method is survey/questionnaire.

Exercise No 4.1 : CPM

Given the below network diagram:



1. Find the float for B.
2. What is the critical path?
3. What is the float for G?
4. Find the float for F.

Answer | Exercise No 4.1 : CPM

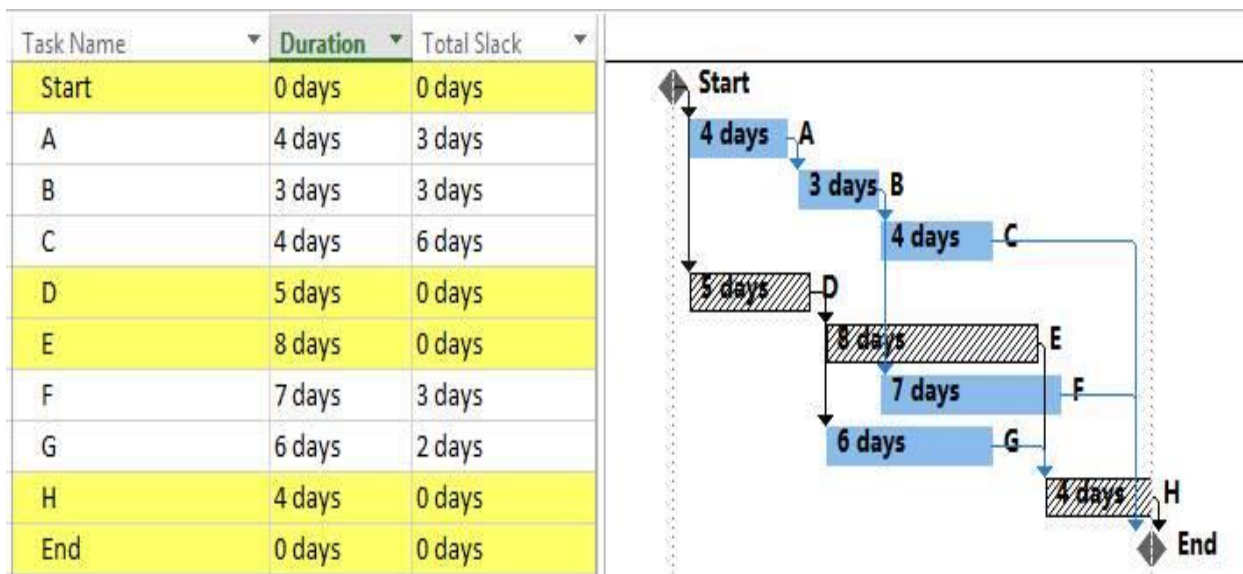
Space provided for the exercise.

Float for activity B = 3

Critical path = DEH

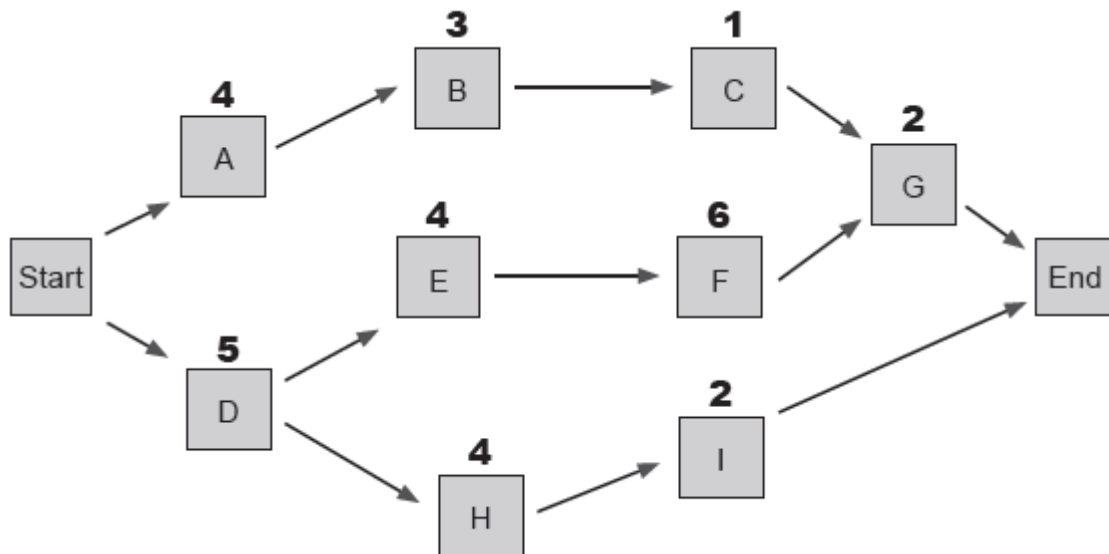
Float for activity G = 2

Float for activity F = 3



Exercise No 4.2 : CPM

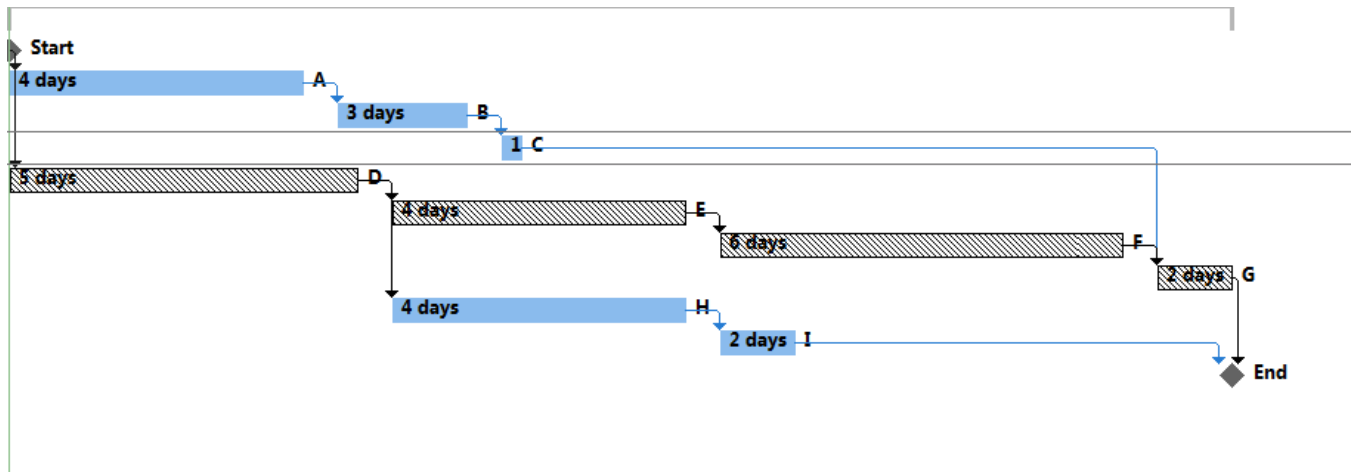
Given the below network diagram:



1. What is the critical path?
2. What is the float for activity F?
3. What is the float for activity C?

Answer | Exercise No 4.2 : CPM

Space provided for the exercise.



Critical path = DEFG.

Float for activity F = 0

Float for activity C = 7

Exercise No 4.3 : Assessment Test

- 1) Jim is working as a project manager in an IT company. The next phase in his project can start only when the previous phase is 100 percent complete. What does this mean?
 - a) The project has overlapping phases
 - b) The project has sequential phases
 - c) The project has iterative phases
 - d) The project has phases that have no relationship with each other

- 2) Jonnie works as project manager in Ford Corp Ltd. The company is in the process of designing a new two-wheeler. He has been assigned the responsibility of estimating the duration for this project. As per his calculation, the project in the worst-case scenario will take 140 days. However, the current team is capable of completing it in 110 days with a high degree of confidence. If the team gets trained, they can complete this project in 80 days. What is the expected project duration using PERT?
 - a) 110 days
 - b) 140 days
 - c) 80 days
 - d) 90 days

- 3) Tom is working on a project that has five activities as follows:

Activity Name	Predecessor	Duration
1	Start	2
2	1	5
3	2	4
4	1	9
5	4	5
End	3,5	

Which is the critical path of the project?

- A. S-1-4-5-F
- B. S-1-2-4-5-F
- C. S-1-2-3-F
- D. S-1-2-5-F

- 4) The 4G rollout team at Air Max services will start the project deployment only when the government allocates the spectrum. What is the dependency here?
- A. Discretionary
 - B. Time related
 - C. Mandatory
 - D. Scope-related
- 5) An activity has an Early Start (ES) of day 5, a Late Start (LS) of day 15, an Early Finish (EF) of day 11 and a Late Finish (LF) of day 21. The activity:
- A. Is on the critical path
 - B. Has a lag
 - C. Is progressing well
 - D. Is not on the critical path
- 6) Which of the following logical relationships is most commonly used to establish activity relationships in a project?
- a) Start-to-finish
 - b) Start-to-start
 - c) Finish-to-finish
 - d) Finish-to-start
- 7) Kim is managing a big complex project spanning at least six years. She has decided to plan the coming phase in detail and leave the rest of the plan at a macro level. This is an example of:
- a) Non conformance
 - b) Inadequate planning
 - c) Progressive elaboration
 - d) Project planning
- 8) Your project consists of two activities. Activity A has a time-duration of two months and activity B has a time-duration of three months. Both the activities can be performed concurrently. What will be the MAXIMUM duration of the project if your project has resource constraints throughout the project?
- a) Two months
 - b) Three months
 - c) Five months
 - d) Six months
- 9) Which of the following indicates a negative float?
- a) The early finish date is equal to the late finish date
 - b) The critical path supports the imposed end date
 - c) The late start date is earlier than the early start date
 - d) When you crash the project

- 10)** In a project, Activity A has a duration of 4 days and begins on the morning of Monday the 4th. The successor Activity, B, has a Finish-to-Start (FS) relationship with A. The Finish-to-Start relationship has 2 days of lag, and Activity B has a duration of 3 days. If Saturday and Sunday are non- working days, which of the following statements is true?
- a) Total elapsed days (completing both activities) is 7 days
 - b) Activity B will be completed by the end of day on Thursday, 14th
 - c) Activity B will be completed by the end of day on Friday, 15th
 - d) Activity B will be completed by the end of day on Tuesday, 12th

Answers | Exercise No 4.3: Assessment Test

Answer 1: B

Explanation:

In projects with sequential phases, the next phase starts only after the previous phase is 100 percent complete.

Answer 2: A

Explanation:

Estimated Duration = $(80 + (4 \times 110) + 140) / 6 = 110$ days.

Answer 3: A

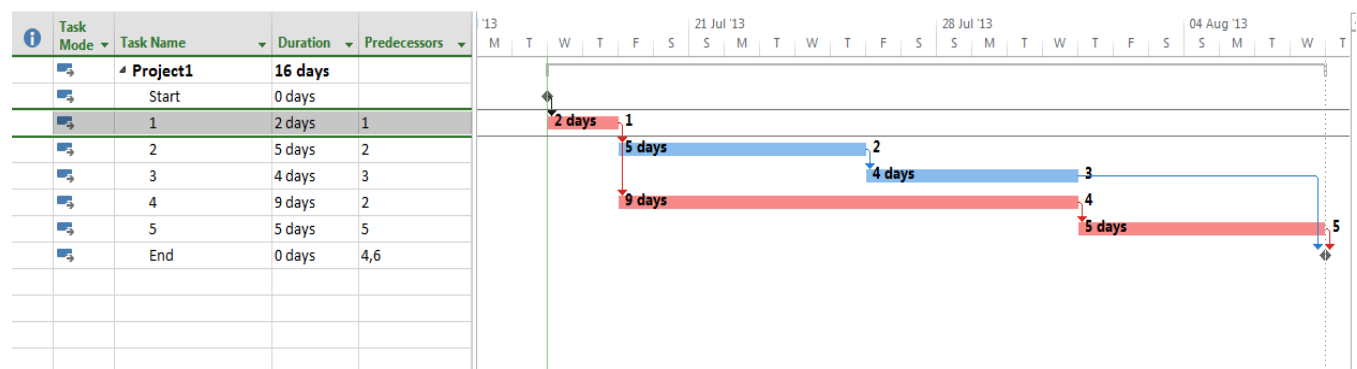
Explanation:

Total paths = 2;

1) Start - 1-2-3-Finish = $2 + 5 + 4 = 11$

2) Start - 1-4-5-Finish = $2 + 9 + 5 = 16$

So CPM is one with duration 16



Answer 4: C

Explanation:

Since project manager cannot start rolling out until the government approves it, it is a mandatory dependency.

Answer 5: D

Explanation:

Float = LS – ES. There is a difference in this case. So, this activity has float. Hence, it can't be on a critical path. Thus, Option A is wrong.

Option B is vague. Option C is incomplete. So, Option D is true.

Answer 6: D

Explanation:

Finish-to-start (FS) is used in PDM mostly, and is also the default relationship in most project management software applications like Microsoft Project and Primavera.

Answer 7: C

Explanation:

Adding details to the project plan as the project progresses is termed progressive elaboration.

Answer 8: C

Explanation:

A and B are supposed to be performed concurrently. If there is a resource constraint, the activities will be performed in sequence. Hence, it will take $3+2 = 5$ months at most.

Answer 9: C

Explanation:

Float = LS-ES or LF-EF.

If LS is smaller than ES, the float will be negative which is precisely the situation in option C.

Answer 10: B

Explanation:

Activity A has a duration of 4 days and completes by end of the day on Thursday, 7th. There is a 2 day lag and since Saturday and Sunday are non-working, Activity B can begin only on Tuesday, 12th. Activity B has a duration of 3 days and completes by end of the day on Thursday, 14th.

Exercise No 5.1 : Cost Estimating Tools

Can you write down which tool is being used in each scenario?

- Bottom-up estimating
- Analogous estimating
- Expert judgment
- Parametric estimating
- Three-point estimates

Question	Description	Answer
1	The director of BUSINESS INTELLIGENCE unit asked Kevin to prepare estimates for a new project that his team will be undertaking. Kevin discusses this with his fellow project manager, goes to the PMO and gets historical information. Later he sits down and uses a function point calculation sheet to derive the estimate for the project.	
2	Jeff wanted to have quick and dirty estimates for a new warehouse, which the company wants to build in Auckland. He consults the architect who built a similar warehouse in another location.	
3	To come up with costing for a wedding function, Rita consulted her mother who gave her valuable input which helped her derive the final costs.	
4	In order to derive the estimates, Steve divided the work packages among his team and collated the final estimation by adding all the estimates.	
5	When flyover bridge estimates were asked from the contractor the contractor gave pessimistic, optimistic and most likely estimates considering the traffic and weather situations.	

Answer | Exercise No 5.1 : Cost Estimating Tools

Sno	Description	Answer
1	<p>The director of BUSINESS INTELLIGENCE unit asked Kevin to estimate for the new project, which his team would be undertaking. Kevin discusses this with his fellow project manager, goes to PMO and gets historical information. Later he sits down and uses function point calculation sheet to derive the estimate for the project.</p> <p>Keyword : calculation</p>	Parametric estimating
2	<p>Jeff wanted to have quick and dirty estimates for a new warehouse which the company wants to build in Auckland. He consults the architect who built a similar warehouse in another location.</p> <p>Keyword : Similar</p>	Analogous estimating
3	<p>To come up with costing for a wedding function, Rita consulted her mother who gave her valuable inputs which helped her derive the final costs.</p> <p>Keyword : valuable inputs from expert</p>	Expert judgment
4	<p>In order to derive the estimates, Steve divided the work packages to his team and collated the final estimation by adding all the estimates.</p> <p>Keyword : Adding all estimates</p>	Bottom-up estimating
5	<p>When a flyover bridge estimates were asked from the contractor – the contractor gave pessimist, optimist and most likely estimates considering the traffic and weather situations.</p> <p>Keyword : Pessimist, Optimist and Most likely estimates</p>	Three-point estimates

Exercise No 5.2 : Reserve Type

Identify the situations that fit the description of contingency reserve or management reserve.

Question	Description	Answer
1	You are a project manager. You kept some reserve to address risks in your project while estimating Costs. Your Cost Baseline consists of this reserve.	
2	You are a project manager. You have encountered a Procurement risk that you did not plan for during Planning. So, you do not have adequate funds to manage it. You approach your senior management for funds.	
3	You, the project manager, manage and control this reserve.	
4	You, the project manager, do not manage and control this reserve.	

Answer | Exercise No 5.2 : Reserve Type

Question	Explanation	Answer
1	Contingency reserve is kept to address known project risks and is a part of the cost baseline.	Contingency reserve
2	Management reserve is kept to address unplanned risks and is controlled by the management.	Management reserve
3	Contingency reserve is controlled by the project manager.	Contingency reserve
4	Management reserve is kept to address unplanned risks and is controlled by the management.	Management reserve

Exercise No 5.3 : Assessment Test

1. Jack is working as a project manager. His project has medium risk involved that is not very well described. Ricky, the project sponsor, gives Jack the Project Charter and asks him to provide confirmation that the project can be completed within the cost budget. Jack provides his estimates. If you need to classify these estimates according to their level of estimation correctness, you would say they are:
 - a. Definitive estimates
 - b. Order of magnitude estimates
 - c. Parametric estimates
 - d. Analogous estimates
2. Stacy has just finished up with the Initiating Process Group processes of her project, and would be starting off with the Planning Process Group processes. Stacy is not happy, as the project is very small as compared to other significant project that her colleagues are managing. One of her major stakeholders suddenly asks her to provide the project budget and cost baseline. What should be Stacy's response?
 - a. The project budget is available in the Project Charter which has been developed after the completion of the Initiation Process
 - b. Only after the completion of the planning processes, the project budget and cost baseline will be created and accepted
 - c. Since it's a small project, it will not have defined budget
 - d. Say 'no' to the stakeholder by explaining that it is not at all possible to create a cost estimate before creating the Project Management Plan
3. Jonathan has prepared cost estimates of a work package. He has added contingencies to the estimates to cover any uncertainty of cost. Which of the following tools and techniques of Estimate Costs has Jonathan used?
 - a. Reserve analysis
 - b. Three-point estimating
 - c. Parametric estimating
 - d. Analogous estimating

4. The Cost Performance Baseline is a time-phased budget and is used as a basis to measure, monitor, and control overall cost performance of the project. It is usually displayed in the form of:
 - A. An S-curve
 - B. An inverted S curve.
 - C. Pie-chart
 - D. A Z curve
5. Contingency Reserves are estimated costs to be used at the discretion of the project manager to deal with:
 - A. Scope creep
 - B. Anticipated but not certain events.
 - C. Unanticipated events
 - D. Anticipated and certain events
6. An estimating technique that uses a statistical relationship between historical data and other variables (for example, square footage in construction, lines of code in software development) is known as:
 - A. Parametric Estimating
 - B. Analogous Estimating
 - C. Bottom-up Estimating
 - D. Historical Analysis
7. Lucy is currently preparing a high-level cost estimate for her project in the initiation phase. Given the limited detail available to her, what would you expect the range of her estimate to be and what would you call such an estimate?
 - A. -25 to +25 %, Rough Order of Magnitude
 - B. -5 to +10 %, Narrow
 - C. -1 to +1 %, Definitive
 - D. -25 to +75 %, Rough Order of Magnitude
8. Funding requirements for a project are usually in incremental amounts that are not continuous, and these appear as a step function in the graph depicting Cash flow, Cost baseline and Funding. Any gap at the end of the project, between the funds allocated and the cost baseline represents:
 - A. Management reserves
 - B. Contingency reserves
 - C. Cost variance
 - D. Charting error

9. Martin is the project manager of a project that is in an early phase. He needs to estimate costs but finds that he has a limited amount of detailed information about the project. Which of the following estimation techniques would be least suited to his requirements?
- A. Top-down Estimating
 - B. Bottom-up Estimating
 - C. Analogous Estimating
 - D. Budgetary Estimating
10. Analogous Cost Estimating is which of the following?
- A. Uses statistical relationship between historical data and other variables
 - B. Generally less accurate
 - C. Bottom-up estimating
 - D. Generally accurate

Answer | Exercise No 5.3 : Assessment Test

Answer 1: B

Explanation:

At the start of the project, the produced estimates can deviate by -25 to +75% from actuals and are called order of magnitude estimates.

Answer 2: B

Explanation:

Let's use the elimination technique to find the best answer.

Option A: The overall project budget may be a part of the Project Charter, but not the cost details.

Option C: All projects should have a budget irrespective of their value or duration.

Option D: It is possible to create a project budget before creating the Project Management Plan, but it will not be accurate.

Hence, Option B is the BEST Answer.

Answer 3: A

Explanation:

Reserve analysis is meant to counter cost uncertainty by having a contingency reserve.

Answer 4: A

Explanation:

The correct response is 'S' curve. The Cost Performance Baseline is a time-phased budget and is used as a basis to measure, monitor, and control overall cost performance of the project. It is usually displayed in the form of: an S curve and is developed by summing estimated costs by period.

Answer 5: B

Explanation: Contingency Reserves are estimated costs to be used at the discretion of the project manager to deal with anticipated, but not certain events. These are also called as "Known unknowns".

Answer 6: A

Explanation: This technique is known as Parametric Estimating and can produce higher levels of accuracy depending on the sophistication, as well as the underlying resource quantity and cost data built into the model.

Answer 7: D

Explanation: During the initial stages of the project, the level of information available will be limited. Hence the Rough Order of Magnitude (ROM) estimate is usually prepared and has an accuracy range of -25% to +75%.

Answer 8: A

Explanation: Management reserves are included in the project's total funds but they are not included in the project's cost performance baseline.

Answer 9: B

Explanation: Bottom-up estimating is a technique that can be applied only when there is a sufficient amount of detail available to the project manager.

Answer 10: B

Explanation: Analogous cost estimating is generally deemed less accurate than other methods of estimation.

Exercise No 6.1 : Quality vs. Grade

Rachel needs a laptop for her own usage at home. She needs a laptop with at least a two year warranty period as she plans to upgrade the laptop after two years and has no intentions of spending any money on the machine other than at the first time buy. She heard that laptop may heat up and is specifically is looking for one that does not heat up during at least 5 hours of continuous use. She wants a nice looking laptop, preferably white.

Identify the situations that describe either the quality or grade of the project's product deliverable.

Question 1. The laptop heats after one hour of usage.

☐ Quality

☐ Grade

Question 2. The laptop that has come with one year warranty.

☐ Quality

☐ Grade

Question 3. The laptop has a glossy surface made of steel.

☐ Quality

☐ Grade

Question 4. The laptop has self-illuminating keys, a useful feature when working at nighttime.

☐ Quality

☐ Grade

Question 5. She placed her order for a white laptop, but received a black one.

☐ Quality

☐ Grade

Answer | Exercise No 6.1 : Quality vs. Grade

Question	Explanation	Answer
1	The customer wanted a laptop that doesn't heat up. As the requirement is not fulfilled here, it's a quality problem.	Quality
2	This is a customer requirement. And hence it is an example of quality.	Quality
3	These are the technical aspects, and hence grade.	Grade
4	This is the type of keyboard (technical specification)	Grade
5	Receiving a white laptop that doesn't conform to the customer's requirements, and is not fit for use.	Quality

Exercise No 6.2 : Prevention Vs. Inspection

Identify which scenario represents Inspection or Prevention.

Question	Description	Answer
1	The applications developed by your coding team have many priority 1 bugs. To control these, you write coding standards that will help your coding team to deliver product and project deliverables with minimum number of bugs.	
2	You work with a packaging company. You come to know that some of the water bottles have not been sealed properly. You therefore check every bottle to ensure that it is sealed correctly.	
3	You work with an e-learning company as Learning and Development Manager. You have added an extra review task where in-depth proof-reading of the content will be done before the content go live on the portal.	
4	Your team is working on a website development project for one of your clients. Before starting the project, you organized training to share the best practices of website development with your team. You also shared with them the lessons learned from previous similar projects.	
5	You work as a marketing manager. You have bought a subscription for an application that checks your marketing collateral for errors and formatting before it is released.	

Answer | Exercise No 6.2 : Prevention Vs. Inspection

Question	Explanation	Answer
1	Writing coding standards so that the errors don't creep into your product/ project deliverables is an example of prevention. Key Word: Standard	Prevention
2	Checking every water bottle to ensure that it has been packaged correctly so that the errors remain out of the hands of customers is an example of Inspection. Key Word: Check/Inspect	Inspection
3	Creating an extra review task to proof read the content before they go live so that the errors remain out of the hands of customers is an example of inspection. Key Word: Proof Read	Inspection
4	Organizing training for your team so that the errors remain out of the product/ project deliverables is an example of prevention. Key Word: Best Practices / Lesson learnt	Prevention
5	Buying a subscription for an application that checks the errors in your marketing collateral before it is released so that the errors remain out of the hands of customers is an example of inspection. Key Word : Checks	Inspection

Exercise No 6.3 : Assessment Test

1. Paul is the newly appointed project manager of a security-related application development project for his country's government. Paul wants to proactively make sure that each code deliverable is up to the project's standards. Which of the following would be of BEST help to him?
 - a) Quality Management Plan
 - b) Process Improvement Plan
 - c) Quality Metrics
 - d) Quality Checklists
2. To collect and measure project attributes during quality control, one uses:
 - a) Quality Management Plan
 - b) Process Improvement Plan
 - c) Quality checklists
 - d) Quality metrics
3. Cobb is working as a quality control manager. He uses a Pareto chart for the purpose of quality control. Which of the following statements is TRUE about Pareto charts?
 - a) 50-50 principle (50 percent of all problems are due to 50 percent of the causes)
 - b) 20-80 principle (20 percent of all problems are due to 80 percent of the causes)
 - c) 80-20 principle (80 percent of all problems are due to 20 percent of the causes)
 - d) 90-10 principle (90 percent of all problems are due to 10 percent of the causes)
4. Keats has been assigned to a project where he has to reduce the number of call drops for a customer support team. Three months have passed. He now wants to have a comparative analysis of the call drops in the last three months. Which tool should be BEST for her use?
 - a) Histograms
 - b) Statistical sampling
 - c) Inspection
 - d) A cause and effect diagram

5. There are six observations which are within the UPPER CONTROL LIMIT and the central line (mean). The seventh observation is observed within the UPPER CONTROL LIMIT and central line, how would you assess the situation?
 - a) The process is in control
 - b) The process is out of control
 - c) There are no defects
 - d) The project manager should move to the next process as everything is OK
6. Amy is using control charts to analyze the defects. She has identified that there is something in the chart which reveals a serious quality problem. What could be the MOST likely cause of it?
 - a) The upper control limit
 - b) The lower control limit
 - c) The cause of the problem
 - d) The Rule of Seven
7. Philip is working as a project manager for Autocars Pvt Ltd. He has asked his team to check every five out of every 100 products to test for performance and quality. Why do project managers generally use statistical sampling instead of checking every product for quality?
 - a) Testing every product would result in more faulty products which would then affect the product brand
 - b) Testing every product would require much more time which will in-turn increase the cost of quality
 - c) Testing every product would have management find more defects and will thus affect the manager's reputation
 - d) Testing every product would increase quality of the product
8. Project success is measured by:
 - a) Performance as measured by the triple constraint
 - b) Product and project quality, timeliness, budget, compliance and degree of customer satisfaction
 - c) The degree to which the project satisfies the project scope
 - d) The CPI and SPI

9. Select the correct statement.
- a) A Pareto chart is a type of histogram
 - b) A histogram is type of Pareto chart
 - c) Plan-Do-Check-Act was developed by Crosby
 - d) According to Deming, quality is free
10. A project manager is unsure of the difference between precision and accuracy and asks for your help in understanding the difference between the two terms. Which of these responses would be the best response to such a question?
- A. Precision is consistency that the value of a repeated set of measurements are clustered and have little scatter whereas accuracy is correctness that the measured value is very close to the true value.
 - B. Accuracy is consistency that the value of a repeated set of measurements are clustered and have little scatter whereas precision is correctness that the measured value is very close to the true value.
 - C. Accuracy and Precision are equivalent and normally specified in the SOW by the customer who issues the SOW.
 - D. Accuracy is more important than precision. The project management team must decide the level of accuracy required.

Answer - Exercise No 6.3 : Assessment Test

Question	Explanation	Answer
1	Quality checklists help to make sure that each repetitive deliverable is up to the project's standards.	D
2	Quality metrics are used for collection and progress reporting.	D
3	80-20 principle (80% of problems are due to 20% of causes).	C

4	Histograms are used to do a comparative analysis. Hence, Option A is the best answer.	A
5	According to the Rule of Seven, seven or more observations in a row occur on the same side of the mean (or if they tend to be in the same direction), even though they may be within the control limit, they should be investigated. So, Option B is the best answer.	B
6	Upper control limits and lower control limits cannot be the causes of a serious quality problem as they indicate the maximum and minimum acceptable values. The cause of the problem is not shown on a control chart. The Rule of Seven is the only option that fits this case. Hence, option D is the correct option.	D
7	Testing every product would require much more time, which will increase the Cost of Quality.	B
8	Satisfying only the project objectives and performing well on the triple constraints are not enough for project success.	B
9	A Pareto chart is a type of histogram	A
10	Precision is consistency that the value of a repeated set of measurements are clustered, and have little scatter, whereas accuracy is correctness that the measured value is very close to the true value. Precise measurements are not necessarily accurate. A very accurate measurement is not necessarily precise. The project management team must determine how much accuracy or precision or both are required.	A

Exercise No 8.1: Communication Model

Match each communication element to its description.

Communication Element		Description
Sender		This is used to transmit the message
Receiver		The entity for which message is intended
Medium		This can change the message
Feedback		Translating message in order to understand
Noise		A response to message
Encoding		Translating so that message can be delivered
Decoding		The entity that initiates the communication

Answer | Exercise No 8.1: Communication model

Description	Answers
This is used to transmit the message	Medium
The person who gets the message	Receiver
Something that interferes with the message	Noise
Translating message in order to understand	Decoding
A response to message	Feedback
Translating so that message can be delivered	Encoding
Entity which initiates the communication	Sender

Exercise No 8.2 : Kinds of Communication

Choose which kind of communication is being used in each situation.

Question 1. A business analyst taking a sign off on customer requirements

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Question 2. Calling the vendor to find out status of a particular deliverable

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Question 3. Presenting your project's status to your company's executive committee.

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Question 4. Sending an email to some of your team members to get more information about an issue that has been identified on your project.

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Question 5. Communicating that a milestone is achieved

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Question 6. Finding the reason for a particular decision in MOM (Minutes of meeting), you call up the fellow team member

- | | |
|---|---|
| <input type="checkbox"/> Formal verbal | <input type="checkbox"/> Informal verbal |
| <input type="checkbox"/> Formal written | <input type="checkbox"/> Informal written |

Answer | Exercise No 8.2 : Kinds of Communication

Question	Description	Answer
1	Business analyst taking a sign off on customer requirements	Formal written
2	To call up the vendor to find out status of a particular deliverable.	Informal verbal
3	You present your project's status to your company's executive committee.	Formal verbal
4	You send an email to some of your team members to get more information about an issue that has been identified on your project.	Informal Written
5	You need to communicate that a milestone is achieved	Formal written
6	To find out the reason for a particular decision in MOM (Minutes of meeting), you call up the fellow team member	Informal verbal

Exercise No 8.3: Assessment Test

Question 1. Successful project managers generally spend most of their time, doing what?

- (a) Updating the Project Management Plan
- (b) Communicating
- (c) Working scheduled activities
- (d) Managing risks

Question 2. Rita is in the middle phases of her project. She has been asked certain information about her project by the stakeholders. She is in the process of identifying the communication method as many of the stakeholders are at different locations. She decides to have the performance reports uploaded in the intranet where only the specific stakeholders will have access to. Which sort of communication method she has opted for?

- (a) Push
- (b) Interactive
- (c) Pull
- (d) Email

Question 3. Natasha is a project manager at a Telecom Company. One of her stakeholders who is based out of the country where there is no Internet facility has asked for an immediate status report of the project. She decided to send a FAX for the same. Which sort of communication BEST describes this?

- (a) Push
- (b) Interactive
- (c) Pull
- (d) Written

Question 4. Natasha has been assigned a new telecom project as a project manager. Her project team and stakeholders are based out of different locations. She has 6 team members, 2 sponsors and 1 client. She wants to inform all of them about the progress of her project. What are the number of lines of communication will she have?

- (a) 45
- (b) 36
- (c) 3
- (d) 50

Question 5. Three members have been added in Natasha's team. Now she has seven team members, one sponsor and one client. How many communication lines (channels) have been added?

- (a) 24
- (b) 21
- (c) 45
- (d) 40

Question 6. You are project manager working with Macro IT CORP LTD. You have been assigned a new project producing an Inventory management system. You are creating communication plan for your project. A communication plan allows a project manager to document the approach to communicate most efficiently and effectively with stakeholders. Effective communication means:

- (a) The information is provided in the right format, at the right time and with the right impact.
- (b) Providing only the information that is needed.
- (c) Providing only the information that is needed by senior management
- (d) Providing the information quickly

Question 7. You are the project manager working with Macro IT CORP LTD. You have been assigned a new project producing an inventory management system.” You are creating a communication plan for your project. A communication plan allows a project manager to document the approach to communicate most efficiently and effectively with stakeholders. Efficient Communication means:

- (a) The information is provided in the right format, at the right time and with the right impact.
- (b) Providing only the information that is needed
- (c) Providing only the information that is needed by senior management
- (d) Providing the information quickly

Question 8. You have recently become a project manager in Manufacturing CORP LTD in Australia. You are using communication model tool to create your communication management plan. Which of the following key component of the communication model is used to translate thoughts or ideas into a language that is understood by others?

- (a) Encode
- (b) Decode
- (c) Noise
- (d) Medium

Question 9. Russell is working as project manager in KWSOft.com. He is using a SharePoint intranet portal for communication information between stakeholders. He is using which of the following methods of communication?

- (a) Interactive method
- (b) Push communication
- (c) Pull communication
- (d) Message communication

Question 10. Meetings are integral part of management. They facilitate the communication of information between individuals. A legitimate reason for assembling the project team in a meeting includes _____.

- (a) Giving team members a chance to know and befriend each other so as to create a better team environment and be an effective team
- (b) Resolving all the team conflicts
- (c) Exhibiting the project information and making further decisions on project direction
- (d) Discussing the project experience among team members

Answer | Exercise No 8.3: Assessment Test

Answer 1: B

Explanation: Project managers spend 90 percent of their time in communication.

Answer 2: C

Explanation: The pull communication method is the technique of posting information so that stakeholders can get it when they need it.

Answer 3: A

Explanation: Push communication means communication is not real time. In this case Natasha has send a FAX, which is a one-way communication.

Answer 4: A

Explanation: The formula to calculate the lines of communication is $\{n*(n-1)\} / 2$. Here you have 9 people plus Natasha, so: $\{10*(10-1)\}/2 = 45$.

Answer 5: A

Explanation: Here you have 7 team members, 1 sponsor, 1 client and 1 as Natasha, so: $\{10*(10-1)\}/2 = 45$; previously Natasha had 1 as herself, 4 team members, 1 sponsor and 1 client, so : $\{7*(7-1)\}/2 = 21$. So additional communication lines: $45 - 21 = 24$.

Answer 6: A

Explanation: The correct answer is A. This is a formal definition taken from the *PMBOK® Guide*

Answer 7: B

Explanation: The correct answer is B. This is a formal definition taken from the *PMBOK® Guide*

Answer 8: A

Explanation: The encode communication step translates the thoughts or ideas of the sender into a language that is understood by others.

Answer 9: C

Explanation: Publishing data on Internet/intranet is example of the pull method of communication.

Answer 10: C

Explanation: Let us use the elimination technique:

Giving team members a chance to know and befriend each other so as to make them create a better team environment and be an effective team is an example of team building exercise

Resolving all the team conflicts can happen one-on-one or through any other modes

Discussing the project experience among team members generally happens at retrospective meeting

The generic purpose of project meetings is to provide updated information regarding the progress of the project. The further project plans are also discussed in the project meeting. This is the most appropriate answer

Exercise No 9.1: Identify Risks

Read each of these scenarios and identify which tool or technique is being used.

- Assumptions analysis
- Brainstorming
- Delphi technique
- Diagramming techniques
- Documentation reviews
- Interviews

S. No.	Scenario	Tool
1	Your project requires that you set up a New Year's party at Riverside park. You gather your team members, including a caterer, a florist, a decorator, and few workers, and lead them in a directed discussion where they identify as many risks as possible.	
2	You've sent a questionnaire to a Riverside park ranger and life-saving guards to gather their opinions on the risk of getting drowned in the river. You seek out to them individually to get unbiased opinion.	
3	You've reviewed your estimates and found that you had assumed that in the worst case scenario the courier takes two days to reach the project construction site. If it does not, serious problems with the project could result.	
4	You've identified a risk that is very complex and you need to identify the root causes. You use the Fishbone diagram technique to gain insight into it.	
5	You meet individually with many different people: the sponsor, stakeholders, team members, and experts. You seek answers to questions about what they think could go wrong on the project.	
6	You look through your organization's asset library and find that few previous projects involved setting up camp in this area. You look through the lessons learned to figure out what went wrong, and what could have been avoided through better planning.	

Answer | Exercise No 9.1 : Risk Identification Magnets

Sno	Scenario	Tool
1	Your project requires that you set up a New Year's party at Riverside park. You gather your team members, including a caterer, a florist, a decorator, and few workers, and lead them in a directed discussion where they identify as many risks as possible.	Brainstorming
2	You've sent a questionnaire to a Riverside park ranger and life-saving guards to gather their opinions on the risk of getting drowned in the river. You seek out to them individually to get unbiased opinion.	Delphi technique
3	You've reviewed your estimates and found that you had assumed that in the worst case scenario the courier takes two days to reach the project construction site. If it does not, serious problems with the project could result.	Assumption analysis
4	You've identified a risk that is very complex and you need to identify the root causes. You use the Fishbone diagram technique to gain insight into it.	Diagramming techniques
5	You meet individually with many different people: the sponsor, stakeholders, team members, and experts. You seek answers to questions about what they think could go wrong on the project.	Interviews
6	You look through your organization's asset library and find that few previous projects involved setting up camp in this area. You look through the lessons learned to figure out what went wrong, and what could have been avoided through better planning.	Documentation reviews

Exercise No 9.2: Risk Response

Take a look at how each of these project risks is treated:

- avoided,
- mitigated,
- transferred, or
- accepted.

Sno	Description	Risk Response
1	Heavy rains and bad road conditions could cause very slippery conditions, so you purchase and install anti-skid tires to keep from losing the road.	
2	You have cancelled the hiking trip as there was high possibility of storm and winds.	
3	Mathew is a project manager for software migration at a bank. A major risk that has been identified is attrition of resources. As a strategy to respond to this risk, Mathew, with support from senior management, provides reasonable task loads to his team members.	
4	The manufacturer issues a warning that the tool you are using has a little or no probability of failure in extreme weather. You outsourced the annual maintenance to the supplier.	
5	You are working on hydroelectric power project. A landslide would be very damaging to your project, but there's nothing you can do about it.	

Answer | Exercise No 9.2: Risk Response Magnets

S. No.	Description	Risk Response
1	Heavy rains and bad road conditions could cause very slippery conditions, so you purchase and install anti-skid tires to keep from losing the road. Here the probability is reduced.	Mitigated
2	You have cancelled the hiking trip as there was high possibility of storm and winds. In this scenario, the first path of risk is not happening at all.	Avoided
3	Mathew is a project manager for software migration at a bank. A major risk that has been identified is attrition of resources. As a strategy to respond to this risk, Mathew, with support from senior management, provides reasonable task loads to his team members. Hence the probability is reduced.	Mitigated
4	The manufacturer issues a warning that the tool you are using has a little or no probability of failure in extreme weather. You outsourced the annual maintenance to the supplier. The risk remains 100%, however the ownership of the risk is changed.	Transferred
5	You are working on hydroelectric power project. A landslide would be very damaging to your project, but there's nothing you can do about it. Nothing is done to reduce the impact/probability.	Accepted

Exercise No 9.3: Assessment Test

1. Which of the following statements is TRUE regarding a probability and impact matrix?
 - a. It multiplies the risk's probability by the cost of the impact so that expected value of the risk can be identified.
 - b. It multiplies the risk's probability—which ranges from 0.0 to 1.0—with the risk's impact for each potential outcome, and then adds the result of the potential outcomes together to determine a risk score.
 - c. The probability and impact matrix are predetermined thresholds that use the risk's probability multiplied by the impact of the risk event to determine an overall risk score.
 - d. The Probability and Impact Matrix multiplies the risk's probability by the risk impact—both of which range from 0.0 to 1.0—to determine the risk score.
2. Thomas is a project manager working on a construction project near New York City. Thomas identified a few events that might affect the outcome of a few project activities. He decided to reduce the impact of these events. In which of the following ways has he chosen to handle these risks?
 - a. Avoid
 - b. Mitigate
 - c. Transfer
 - d. Accept

3. Jack, the project manager, is currently involved in risk identification of his project. He got all his team members in a room to generate ideas. Which of the following information gathering techniques is he using?
 - a. Brainstorming
 - b. Delphi technique
 - c. Root-cause identification
 - d. Interviews
4. You are currently working as a project manager in BCL Logistics. You have been given the responsibility for moving the infrastructure of ABC Software LTD to their newly procured office in Los Angeles. During risk planning, you documented your results in the Risk Register including both negative and positive risks. Which of the following techniques is used to handle both positive and negative risks?
 - a. Mitigate
 - b. Accept
 - c. Exploit
 - d. Enhance
5. What is the main objective in identifying risk tolerances?
 - a. To identify the risk appetite of the organization
 - b. To assist the project manager in estimating the project
 - c. To assist the project team in scheduling the project
 - d. To assist management knowing what other managers have to say about the project
6. Jack and his team identified 200 risks and 10 major causes of those risks in a project. However, during project planning, the team was unable to deduce an effective way to mitigate or insure against one of the risks. The risk if happens falls under management tolerance limits. It is not the kind of work that can be outsourced. Nor can it be deleted. What would be the best approach?
 - a. Accept
 - b. Mitigate
 - c. Avoid
 - d. Transfer

7. Keeping a buffer resource as a planned response to a risk of attrition can be categorized as what type of risk response:
 - a. Accept
 - b. Mitigate
 - c. Avoid
 - d. Transfer
8. Your team member Nicole discovers a risk event that is not mentioned in the Risk Register. One deliverable is accepted by the customer and second is underway. You still need to plan and work on three more deliverables to complete the project. What should you do now?
 - a. Investigate in detail how Nicole discovered the risk as when you performed the analysis in detail earlier, the risk wasn't discovered
 - b. Avoid it and carry on with your project
 - c. Share with the customer the information on the risk and its impact
 - d. Perform an analysis of the risk
9. If a project has a 60 percent chance of a U.S. \$100,000 profit and a 40 percent chance of a U.S. \$100,000 loss, what is the expected monetary value of the project?
 - a. U.S. \$20,000 profit
 - b. U.S. \$40,000 loss
 - c. U.S. \$100,000 profit
 - d. U.S. \$60,000 loss
10. You are in the middle of a risk assessment meeting with key stakeholders, customers and project team leaders. While identifying and assessing risks, you have realized that two key stakeholders are overemphasizing the impact of a risk. What is the BEST step you must take to avoid unfairness or bias during risk assessment?
 - a. Implement assumptions analysis to explore the validity of assumptions
 - b. Develop a risk response strategy to eliminate threats
 - c. Perform qualitative risk analysis to identify risk weightings
 - d. Perform sensitivity analysis to establish which risks have the most impact on the project

Answer | Exercise No 9.3: Assessment Test

Answer 1: c

Explanation:

The probability and impact matrix multiplies the probability of occurrence of the risk and its impact on project objectives to determine a risk score. Using this score and a predetermined matrix, you determine if the score is high, medium or low.

Hence, Option C is the correct answer.

Answer 2: b

Explanation:

The mitigate risk response strategy is used to take actions to ensure that the events cause as little damage as possible to the project activities.

Hence, Option B is the correct answer.

Answer 3: a

Explanation:

Brainstorming is a type of information gathering technique which is used to generate ideas.

Hence, Option A is the correct answer.

Answer 4: b

Explanation:

Only the accept response is used to handle both positive as well as negative risks.

Hence, B is the correct answer.

Answer 5: a

Explanation:

Identifying risk tolerances helps in understanding how much appetite the organization has for absorbing risks.

Answer 6: a

Explanation:

According to the question, Jack cannot delete or avoid the work, nor can he outsource it to transfer the risk.

Hence, A is the correct answer.

Answer 7: b

Explanation: Let's use the elimination technique

- a. Accept – The risk response planning is done, an extra resource is onboard – not a correct option.
- b. Mitigate – Adding the buffer reduces the impact of people leaving by having adequate knowledge by a shadow resource - correct answer

- c. Avoid - By adding a resource you still have risk of attrition – not the correct option
- d. Transfer – No outsourcing done – Not a correct option

So Mitigate is the right option.

Answer 8: d

Explanation:

You have to first analyze the risk and identify what could be its probability of occurrence and impact on project objectives. You can then decide further steps.

Answer 9: a

Explanation:

Expected Monetary Value is calculated by multiplying the probability of occurrence by the impact.

EMV = Probability x Impact.

So, Profit = $0.6 \times \$100,000 = \$60,000$

Whereas Loss = $0.4 \times (\$100,000) = (\$40,000)$

EMV = $\$60,000 - \$40,000 = \$20,000$ profit

Hence, Option A is the correct answer.

Answer 10: c

Explanation:

After identifying risks, the project manager must prioritize risks for further analysis by assessing and analyzing the impact of each. It is often possible that during the risk assessment, risk weightings may introduce bias. Project managers must identify and manage risk weightings through qualitative risk analysis.

Hence, C is the correct answer.

Exercise No 10.1: Make or Buy

A Project Manager has been entrusted to undertake a make-or-buy decision. A certain software module would cost USD 48,000 to develop in-house and USD 3,000 a month to maintain. An outside vendor has offered to provide the module at a charge of USD 35,000 and the maintenance fee of USD 25 per user, and the company expects around 300 users each month. What decision should he make if the project duration is 1 year and the product will be put on maintenance for 2 years?

Answer | Exercise No 10.1: Make or Buy

Make Cost = $48,000 + (3,000 * 24) = \text{USD } 1,20,000$

Buy Cost = $35,000 + (25 * 300 * 24) = \text{USD } 2,15,000$.

The Project Manager should take the Make decision.

Exercise No 10.2: Contract Types

Identify contract types from

1. Firm Fixed Price Contracts
2. Fixed Price Incentive Fee Contracts
3. Fixed Price with Economic Price Adjustment Contracts
4. Cost Plus Fixed Fee Contracts
5. Cost Plus Incentive Fee Contracts
6. Cost Plus Award Fee Contracts
7. Time and Material Contracts

S. No.	Scenario	Contract Types
1	A contract having special provisions allowing for predefined final adjustments to the contract price due to changed conditions, such as inflation or cost increases (or decreases) for specific commodities.	
2	The seller is reimbursed for all allowable costs for performing the contract work and receives a predetermined incentive fee based upon achieving certain performance objectives as set forth in the contract.	
3	Contracts which specify rates per hour, or categories of materials at specified rates per unit.	
4	In this contract, the buyer should precisely specify the product or services to be procured and any changes to the procurement specification can increase the costs to the buyer.	

Answer | Exercise No 10.2: Contract Types

S. No.	Scenario	Contract Types
1	A contract having special provisions allowing for predefined final adjustments to the contract price due to changed conditions, such as inflation or cost increases (or decreases) for specific commodities.	Fixed Price with Economic Price Adjustment Contracts
2	The seller is reimbursed for all allowable costs for performing the contract work and receives a predetermined incentive fee based upon achieving certain performance objectives as set forth in the contract.	Cost Plus Incentive Fee Contracts
3	Contracts which specify rates per hour, or categories of materials at specified rates per unit.	Time and Material Contracts
4	In this contract, the buyer should precisely specify the product or services to be procured and any changes to the procurement specification can increase the costs to the buyer.	Firm Fixed Price Contracts

Exercise No 10.3: Module End Assessment

1. Mary is working as a project manager in an export house that wants to develop an online shopping site. She finally decides to contract the effort to another company and agrees to pay \$ 30 per hour per resource. What type of contract is being used?
 - a) Fixed Price
 - b) Time and Material
 - c) Cost Reimbursable
 - d) Cost Plus Award Fee

2. Which contract type carries the maximum risk for the seller?
 - a) Fixed Price
 - b) Time and Material
 - c) Cost Reimbursable
 - d) Cost Plus Award Fee

3. You have recently joined as a project manager in a manufacturing company in Australia. You are looking for a document describing how to select a contractor for a contract. This can be found in the:
 - a) Procurement Management Plan
 - b) Project Charter
 - c) Requirement document
 - d) All of the above

4. What advantages does a buyer derive from a Fixed Price Contract?
- a)** Lower cost risk
 - b)** Higher cost risk
 - c)** No risk
 - d)** The risk is equal for both seller and buyer

Answer | Exercise No 10.3: Assessment Test

Answer 1: B

Explanation: This is a Time and Material (rate) contract where the seller is paid for per hour or per unit.

Answer 2: A

Explanation: In a Fixed Price Contract the seller carries the most risk.

Answer 3: A

Explanation: The Procurement Management Plan determines how to select a contractor for a contract.

Answer 4: A

Explanation: Always keep in mind that such questions are asked from the buyer's point of view unless otherwise specified. In a Fixed Price (FP) contract, the cost risk of the buyer is less because of the nature of FP contracts. In FP contracts if the scope does not change, the buyer pays the amount agreed to in the contract, Any adverse situations like attrition, rising material cost and natural disasters has to be borne by the seller.

Exercise No 11.1: Assessment Test

1. Nick has to send progress reports to various stakeholders. He needs to know to whom he should send the progress report. Which documents should he look at?
 - a. Stakeholder Register, Communication Plan
 - b. Stakeholder Analysis, Stakeholder Register
 - c. Communication Plan, Stakeholder Analysis
 - d. Reporting Systems, Stakeholder Analysis
2. You work for FLD Construction. Your new project is to construct a township in the outskirts of your city. The project should end in two years of time. However, due to some unexpected climatic and weather conditions, you are far behind the schedule. Whom should you inform the status and issues? Give the BEST answer.
 - a. Project Sponsor
 - b. As per the Communication Plan
 - c. Project Team Members
 - d. Client
3. To achieve more extensive involvement of the stakeholders in your project, which is the best approach?
 - a. Have the stakeholders touch base periodically, leading to stakeholder analysis and planning ahead
 - b. Invite the stakeholders to attend project status meetings
 - c. Send status reports to the stakeholders
 - d. Constantly update the stakeholders on the status of all project changes

Answer | Exercise No 11.1: Assessment Test

Answer 1: A

Explanation: The Stakeholder Register contains information about which stakeholders relevant to their need for information. The Communication Plan specifies the type of information they should receive, how it is sent, and when.

Answer 2: B

Explanation: The project manager needs to communicate effectively with respect to issues, status and reporting. These objectives can be achieved by adhering to the Communication Management Plan.

Answer 3: A

Explanation: Stakeholder Engagement needs to be assessed initially, re-assessed periodically and adjustments made as needed.

Exercise No 12.1 : Stages - Team Development

Each of the following scenarios demonstrates one of the stages of team development. Write down which stage each scenario describes - Forming/ Storming / Norming/ Performing/Adjourning

Question 1. Joey and Ralph are both programmers on the latest software development project. They disagree on the overall architecture for the software they're building, and frequently get into shouting matches over it. Joey thinks Ralph's design is too short-sighted and can't be re-used. Ralph thinks Joey's design is too complicated and probably won't work. They're at a point right now where they're barely talking to each other.

Question 2. Kevin and Rachel are great at handling the constant scope changes on the data warehouse project. Whenever the stakeholders request changes, they guide them through the change control process and make sure the team doesn't get bothered with them unless it's absolutely necessary. That leaves Robert and Bob to focus on building the main product. Everybody is focusing on their strength and doing a great job. It seems like it's all just clicking for the group.

Question 3. Carlos just joined the team, and he's really reserved. Folks on the team aren't quite sure what to make of him. Everybody's polite.

Question 4. Now that the product has shipped, the team has started to document lessons learned and write project evaluations.

Question 5. Sam works with a team of 10 individuals. Everyone is given clear responsibilities. Sam focuses on developing test scenarios. He ensures that he does his work on time even though the team is delayed by several days.

Answer | Exercise No 12.1 : Stages - Team Development

Answer 1. Storming

Answer 2. Performing

Answer 3. Forming

Answer 4. Adjourning

Answer 5. Norming

Exercise No 12.2 : Conflict Management

Take a look at each of these attempts to resolve a conflict and figure out which of the following conflict resolution technique is being used - Withdraw/Avoid, Smooth/Accommodate, Compromise/Reconcile, Force/Direct or Collaborate/Problem Solve.

Question 1. “I don’t really have time for this—let’s just do it your way and forget I ever brought up the problem.”

Question 2. “Look Abraham, Rob has already briefed me in on your issue. I’ve considered his position, and I’ve decided that he’s right, so I don’t need to hear any more about it.”

Question 3. “Hold on a second, let’s all sit down and figure out what the real problem is.”

Question 4. “Maurice, you’ve got a solid case, but Kevin really brings up some good points. If you just make two little concessions, and Kevin gives up one of his points, we’ll all be good.”

Question 5. “You guys are almost entirely in agreement—you just differ on one little point! I’ll bet we’ll be laughing about this next week.”

Question 6. “I don’t really have time to deal with this right now. Just figure it out and get back to me.”

Question 7. “I know this problem seems really big, but I’ll bet if we take a long, hard look at it, we can figure out how to fix it permanently.”

Answer | Exercise No 12.2 : Conflict Management

Answer 1. Withdraw/Avoid

Answer 2. Force/Direct

Answer 3. Collaborate/Problem Solve

Answer 4. Compromise/Reconcile

Answer 5. Smooth/Accommodate

Answer 6. Withdraw/Avoid

Answer 7. Collaborate

Exercise No 13.1: Communication

Rachel and Joey are interviewing new developers to help with the upcoming projects. Choose which of the following kind of communication is being used in each situation –

Paralingual / Non-Verbal / Feedback

Question 1. One applicant came in 30 minutes late and was dressed unprofessionally. The guys knew that he would not be a good fit for the position.

☐ Paralingual

☐ Nonverbal

☐ Feedback

Question 2. Joey asked an applicant about her background. Her tone of voice was really sarcastic, and he got the impression she didn't take the job seriously. Joey and Rachel decided to pass on her, too.

☐ Paralingual

☐ Nonverbal

☐ Feedback

Question 3. Joey asked the next applicant if he knew what data types are. He said "data types? Sure, and explained with the usage.

☐ Paralingual

☐ Nonverbal

☐ Feedback

Question 4. Then the applicant told them about his background as a junior developer in other company. As he spoke, he made eye contact with them and made sure to confirm agreement with them.

☐ Paralingual

☐ Nonverbal

☐ Feedback

Answer | Exercise No 13.1: Communication

Answer 1: Nonverbal

Answer 2: Paralingual

Answer 3: Feedback

Answer 4: Nonverbal

Exercise No 14.1: PMP Lite Mock Exam 1 Practice Questions

1. Daniel is managing the development of an ecommerce website for his organization. Daniel enjoys coercive powers and has assigned Julie, a project team member, to facilitate the team meetings. During any team meeting, Julie must?
 - A. Influence team members to support the project manager's decisions
 - B. Support the team members to challenge the project manager's decisions
 - C. Negotiate with team members to achieve the project objectives
 - D. Remain neutral and facilitate the meetings
2. You are a consulting project manager and have been contracted by an investment bank to run a large information technology project that is expected to last 15 months. During the Direct and Manage Project Work process, you discover that several regulatory requirements have not been addressed in the project management plan. Failure to meet these requirements could result in legal action against the company. However, implementing the technology to comply with these regulations exceeds the budget and scope of the project, and could result in the cancellation of the project. What should you do?
 - A. Submit a change request to incorporate the missed requirements to the project's scope.
 - B. Do not do anything as these requirements are not a part of the scope baseline.
 - C. Request additional funds to implement these requirements.
 - D. This is a classical example of scope creep and such requirements must be ignored.
3. A fundamentally functional organization creates a special project team to handle a critical project. This team has many of the characteristics of a project team in a project organization and has a Project manager dedicated to the project. Such an organization would be called:
 - A. A projectized organization
 - B. A functional organization.
 - C. A strong matrix organization
 - D. A composite organization
4. As you are creating the Activity List, which technique is recommended for subdividing the project into smaller components called activities?
 - A. Decomposition
 - B. Rolling Wave Planning
 - C. Expert judgment
 - D. Deconstruction
5. Linda has been assigned to establish a PMO in her organization. Linda believes that this project cannot be successful unless all of the key project stakeholders support the project. She also believes that she needs to pay special attention on stakeholder management to

ensure success of this project. As the first step, she needs to develop her stakeholder register. Which of the following processes must be started by Linda to produce the project stakeholder register?

- A. Plan Stakeholder Management
 - B. Control Stakeholder Engagement
 - C. Identify Stakeholders
 - D. Manage Stakeholder Engagement
6. The Create WBS process identifies the deliverables at the _____ level in the Work Breakdown Structure (WBS).
- A. Lowest
 - B. Any
 - C. Tenth
 - D. Highest
7. What is the primary risk with including reserves or contingency allowances in your cost estimate?
- A. Cancelling your project
 - B. Understating the cost estimate
 - C. Overstating the cost estimate
 - D. Tracking the funds
8. Which of the following statements most accurately describes a project scenario?
- A. Changes in project scope during the initial phases of the project are very expensive.
 - B. The influence of the stakeholders is the same all through the project.
 - C. Staffing peaks up during the execution phase of a project.
 - D. The next phase of a project should never start until the deliverables for the previous phase have been completely reviewed and approved.
9. Which of the following is not an organizational process asset that is used during the Plan Human Resource Management process?
- A. Template for organizational charts
 - B. Template for position descriptions
 - C. Standardized role descriptions
 - D. Standardized stakeholder list
10. With the establishment of a PMO in an organization, the project management jargon is being adopted by the employees. However, few people are still struggling with the project management terminologies. One of the most common confusion is the difference between a project stakeholder and a key stakeholder. Who are the key stakeholders?

- A. Individuals, groups or organizations in a decision making position.
 - B. Individuals, groups or organizations actively involved in the project.
 - C. Individuals, groups or organizations affected by the project.
 - D. Individuals, groups or organizations carrying out the project work.
- 11.** In a team meeting, Natasha has asked her team members if anyone knows how to write a particular code where you require C language expertise. Jeff responded "C language? Yes Ma'am I have learned the language." What sort of communication term BEST describes that Jeff used?
- A. Para lingual
 - B. Non-verbal
 - C. Feedback
 - D. Formal verbal
- 12.** After brainstorming potential project risks, what is the recommended method for prioritizing these risks and their mitigation plans?
- A. RACI chart
 - B. Control chart
 - C. Fishbone Diagram
 - D. Probability and impact matrix
- 13.** During risk identification sessions, you and your team identified more than 150 risks for your project. You are afraid that evaluating each of these risks quantitatively will cost you an enormous amount of time, while not all of them are really relevant and important enough to justify such a measure. What should you do next?
- A. Identify risk triggers where possible. Analyze only those risks quantitatively for which no trigger could be found
 - B. Use qualitative risk analysis in order to prioritize risks for further action, such as quantitative risk analysis
 - C. Assess the probability of each risk qualitatively and further analyze only those risks with high probability
 - D. Assess the potential impact of each risk qualitatively and further analyze only those risks with high impact
- 14.** If you are requesting a vendor quote for a defined scope, what is the recommended contract type?
- A. Fixed price
 - B. Commission
 - C. Cost reimbursable
 - D. Time and materials

15. All of the following are interpersonal skills EXCEPT:

- A. Resisting to change
- B. Building trust
- C. Resolving conflict
- D. Active listening

16. What is the logical sequence of the Project Scope Management planning processes?

- A. Create WBS, Collect Requirements, Define Scope, Validate Scope, and Control Scope
- B. Plan Scope Management, Collect Requirements, Define Scope, Create WBS, Validate Scope, and Control Scope
- C. Plan Scope Management, Collect Requirements, Define Scope, Create WBS
- D. Plan Scope Management, Collect Requirements, Define Scope, Validate Scope, Create WBS, and Control Scope

17. The most detailed level of the WBS is called the _____ .

- A. WBS element
- B. Work package
- C. Project scope
- D. Deliverable

18. Which of the following is a hierarchical representation of project risks?

- A. Risk Register
- B. Risk Mitigation
- C. Risk categories
- D. Risk Breakdown Structure

19. Bidder conferences are conducted to achieve which objective?

- A. To make sure that all questions from potential sellers are answered privately
- B. To make sure that all potential sellers are treated equally and have access to the same information
- C. To make sure that potential sellers are treated equally based on the type of questions asked
- D. To ensure that all parties get answers to their questions

20. A large network hardware upgrade project was scheduled to take place over a weekend. During the course of the implementation, several previously unidentified dependencies for additional materials were discovered. The project manager gave approval for the tech staff doing the implementation procure with corporate credit cards several hundred dollars worth of additional equipment required to complete the implementation. However these

additional expenses caused the project to exceed its budget. How should the project manager handle this?

- A. Ask the IT Director to cover those expenses from his budget.
- B. Advise the staff to submit expense reports for the purchases. Because the cost is relatively small, it can be categorized as miscellaneous purchases that are not associated with the project.
- C. Notify the project stakeholders immediately of the additional expenses incurred and follow project and or company procedures for budget variances.
- D. Do nothing- that's what reserves are for.

21. During the Plan Procurement Management phase, the make-or-____ analysis must be completed. This technique prompts the project team to determine the source of their item.

- A. lease
- B. buy
- C. find
- D. ignore

22. Which of these precedence relationships is least commonly used in Precedence Diagramming Method?

- A. Start to Start
- B. Finish to Finish
- C. Finish to Start
- D. Start to Finish

23. A RACI chart is an example of a _____.

- A. Network
- B. Flowchart
- C. Responsibility assignment matrix
- D. Hierarchical-type organization chart

24. A project manager determines that there are 15 communication channels in the project. The number of stakeholders in the project must then be:

- A. 15
- B. 6
- C. 8
- D. 105

25. Your company has temporarily assigned you to serve as a project manager at a company location outside your home country. While meeting with a vendor your first day on the job, you are presented with a gift. The corporate policy at the headquarters in your home country prohibits employees from accepting these types of gifts. However, as you are new

to this location, you believe- but are not sure-that the local policy, as well as local custom may differ. How should you respond?

- A. Provide a gift of similar value to the vendor at your next meeting.
- B. Accept the gift but do not tell anyone.
- C. Respectfully tell the vendor you are not sure of corporate policy, and will need to ask your management before you can accept gifts of any size.
- D. Accept the gift this time, but ask your manager about the local policy afterwards.

26. If you are writing a proposal for additional funding, which communication style should you choose?

- A. formal and horizontal
- B. formal and vertical
- C. informal and vertical
- D. informal and horizontal

27. If you want a group of experts to identify project risks, but also want unbiased data, what is an appropriate technique to use?

- A. Interviewing
- B. Delphi technique
- C. Assumption analysis
- D. Brainstorming

28. If you are working on a project with constantly changing scope, which contract type would work best when hiring an outside vendor to complete a portion of the work?

- A. Cost reimbursable
- B. Lump sum
- C. Time and material
- D. Fixed price

29. Which process of integrative project management documents the actions necessary to define, prepare, integrate, and coordinate all subsidiary plans into a project management plan?

- A. Direct and Manage Project Work
- B. Monitor and Control Project Work
- C. Develop Project Charter
- D. Develop Project Management Plan

30. The major disadvantage of a pull communication is:

- A. The project manager doesn't have to manage the request for information

- B. The information is useless if the stakeholders don't participate in the system i.e., if no one requests the information, stakeholders may miss out on important project information
 - C. The information is available according to need
 - D. The information is too vast
- 31.** A project manager scheduled a review at the end of a phase, with the objective of obtaining authorization to close the current project phase and initiate the next phase. Which of the following is an incorrect way of describing this review?
- A. Phase gate
 - B. Phase planning
 - C. Kill point
 - D. Stage gate
- 32.** The team is currently implementing the strategies to counter the risks that have been identified and analyzed. Which process are they performing?
- A. Implement risk responses
 - B. Direct and manage project work
 - C. Executing
 - D. Manage project knowledge
- 33.** The Requirements Traceability Matrix helps in tracing all of the following except:
- A. Requirements to project objectives
 - B. Requirements to project scope
 - C. Requirements to test strategy
 - D. Requirements to project risk
- 34.** Which of the following should you NOT use as an input into creating the WBS structure?
- A. Bill of Material (BOM)
 - B. Project scope statement
 - C. Organizational process assets
 - D. Requirements documentation
- 35.** You are on the vendor selection committee for a large IT project that you will be managing for your company. Your friend works for a company that is planning to bid on the project. During a social dinner, the friend tells his job is on the line if his company does not win the contract. What should you do?
- A. Notify the project stakeholders that you have social ties with one of the vendors, and excuse yourself from the selection committee.
 - B. Tell the friend you will do what you can, but don't actually act on this.

- C. Don't mention your relationship to anyone involved with the project, but push for the friend's company during the selection process.
- D. This is simply networking. Let the project stakeholders know you have a social connection to the vendor and recommend they get the business.

36. Which term best describes the Identify Risks process?

- A. Finite
- B. Redundant
- C. Iterative
- D. Inconsequential

37. During the Plan Risk Management process, assigning _____ will help you and the project team identify all important risks and work more effectively during the identification process.

- A. risk factors
- B. blame
- C. risk mitigation plans
- D. risk categories

38. Which of these processes is NOT a project time management process?

- A. Create WBS
- B. Develop Schedule
- C. Define Activities
- D. Sequence Activities

39. The technique most commonly used by project management software packages to construct a project schedule network diagram is:

- A. Activity-On-Node (AON)
- B. Finish-to-Start (FS)
- C. Activity-In-Node (AIN)
- D. Node-On-Activity (NOA)

40. Which of the following defines the total scope of the project and represents the work specified in the current approved project scope statement?

- A. Work Breakdown Structure (WBS)
- B. Bill of Material (BOM)
- C. Project Charter
- D. Requirements Breakdown Structure (RBS)

- 41.** If you are creating a new WBS for your project, what should you consider to save time during the creation process?
- A. Delegate the WBS creation since it is not an important process
 - B. Skip the WBS process
 - C. Use a previous WBS from a similar project as a template
 - D. Create a less detailed WBS
- 42.** Which of these precedence relationships is most commonly used in Precedence Diagramming Method?
- A. Finish to Start
 - B. Start to Finish
 - C. Start to Start
 - D. Finish to Finish
- 43.** You are the project manager in your organization. You have very little authority over the projects you manage, and you are mainly engaged in project coordination activities. You are currently struggling with obtaining the required human resources for your project during the Acquire Project Team process. Who you need to negotiate with to obtain these resources?
- A. The functional managers
 - B. The project sponsor
 - C. The customer
 - D. Your line manager
- 44.** A good quality audit should be:
- A. structured and independent
 - B. informal and independent
 - C. informal and internal
 - D. structured and internal
- 45.** What is the traditional way to display a reporting structure among project team members?
- A. Text-oriented role description
 - B. Flowchart
 - C. Hierarchical-type charts
 - D. Matrix based responsibility chart
- 46.** The Project Charter formally authorizes a project. Who authorizes the project charter?
- A. The project manager
 - B. A project sponsor or initiator internal to the project
 - C. The user of the product

D. A project sponsor or initiator external to the project

47. In an ongoing project, the project sponsor and a manager of the performing organization are having conflicts. What would be your comment on this situation?

- A. The project manager needs to step in and handle the stakeholders' expectations. The stakeholders may have different objectives and interests in the project.
- B. The project manager needs to step in and handle the stakeholders' expectations. All stakeholders are supposed to have the same objectives and interests in a project.
- C. The project manager should resolve in favor of the project sponsor since he is providing the funds for the project.
- D. The project manager should resolve in favor of the manager of the performing organization since they are executing the project and need to be kept in good books.

48. Project risks should be identified by:

- A. Those invited to the risk identification process only
- B. Key project stakeholders only
- C. The project manager only
- D. All project personnel

49. A control chart should always contain:

- A. Upper and lower warning limits
- B. The moving average
- C. Upper and lower control limits
- D. Upper and lower specification limits

50. When would Rolling Wave Planning be useful in a project?

- A. You should use Rolling Wave Planning to help you achieve the appropriate level of detail in each work package at the right time.
- B. You should use Rolling Wave Planning to determine the correct sequencing for long term items.
- C. You should use Rolling Wave Planning to help you organize team member's activities within a large project group.
- D. You should use Rolling Wave Planning to help you determine which activities are more important and should be done first.

Answers 14.1

1. D - Since the project manager enjoys coercive powers, it seems likely that he has assigned a neutral facilitator to facilitate the team meetings. Facilitation is a management skill. A good facilitator should always remain neutral in a meeting and help facilitate consensus when required.
2. A - All regulatory requirements must be met. Not doing anything or considering this a scope creep are not valid options for the project manager. The project manager would have to request for additional funds but first he needs to submit a change request for approval. Change request can be submitted as a part of the Direct and Manage Project Work process.
3. D - This organization would be called a composite organization.
4. A - The decomposition technique allows the project manager to create smaller and more manageable pieces of work from the larger work packages.
5. C - The stakeholder register is developed during the Identify Stakeholders process.
6. A - The Create WBS process identifies the deliverables at the lowest level in the WBS, the work package. Project work packages are typically decomposed into smaller components called activities that represent the work necessary to complete the work package.
7. C - Contingency funds are used to handle cost uncertainty due to unknown purchases that may be needed during a project. These funds are generally used for items that are likely to occur, but not certain to occur.
8. C - Staffing is typically the highest during the execution phase of the project. The other three responses may not hold true. Projects can move forward into subsequent phases without the deliverables of the prior phase being completely approved - this is known as fast tracking. Changes during the initial phases of the project are the least expensive. The influence of the stakeholders is the highest during the start of the project and reduces as the project moves to completion.
9. D - Standardized stakeholder list is not a valid organizational asset used in the Plan Human Resource Management process. The others are valid assets. Other assets are: Historical information on org structures that have worked in previous projects and organizational processes and policies
10. A - All of the given choices correctly define the project stakeholders. However, the key stakeholders are the subset of the project stakeholders that are in a decision making position.
11. C - Jeff repeated the question and this is an example of feedback where he summarized the main point from Natasha..
12. D - A probability and impact matrix will help filter the high risk items and high impact items from the others so that you can focus your attention on these riskier items.
13. B - Perform Qualitative Risk Analysis is the process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact. The key benefit of this process is that it enables project managers to reduce the level of uncertainty and to focus on high-priority risks.
14. A - The fixed price contract works best with a very well defined project scope.
15. A - Resisting to change is not a valid interpersonal skill. The rest of the choices are examples of interpersonal skills.
16. C - The logical sequence of the scope management planning processes are Plan Scope Management, Collect Requirements, Define Scope, Create WBS.
17. B - The work package is the lowest and most detailed level of the WBS and can be scheduled, cost estimated, monitored, and controlled.
18. D - The Risk Breakdown Structure (RBS) is a hierarchical presentation of the project risks sorted by risk categories.

- 19. A - Expert Judgment is a tool or technique used in the Monitor and Control Project Work process.
- 20. C - Notifying project stakeholders and following proper procedures for dealing with budget variances is the best response. Attempting to pass off or hide an unexpected expense in another budget or in expense reports rather than following proper procedures is dishonest and unprofessional. The PMI code of ethics requires project managers to be honest, take responsibility for errors, and to follow all organizational rules and policies.
- 21. B - The make-or-buy analysis is a technique used by the project manager to determine whether a particular work can be best completed by the project team or should be procured from outside sources.
- 22. D - Start to Finish relationships indicate that the next task is not able to be completed until the one preceding it has started. This is not commonly used.
- 23. C - A RACI chart outlines, in matrix form, the project tasks and who is responsible, accountable, consultable, and informable for each task.
- 24. B - The correct answer is 6. The number of channels = $n(n-1)/2$ where 'n' is the number of stakeholders. The answer cannot be 105 since the number of stakeholders will be less than the communication channels. The option 15 is eliminated since it is the same as the number of stakeholders. Options remaining are 6 and 8. Calculating with 6 gives $(6 * 5) / 2 = 15$ and with 8 gives $(8 * 7) / 2 = 28$. So the answer is 6.
- 25. C - While organizational and cultural differences can cause conflict, the project manager is bound by the code of ethics to practice honestly, respect, professionalism, and to follow policies, regulations, and laws pertaining. The best choice is to decline the gift, and confer with management about gift policies.
- 26. B - Since this will be an official project document, it should be formal in nature. Additionally, since you are requesting money from someone higher up in the organization, you are creating a vertical communication.
- 27. B - The Delphi technique involves anonymous questionnaires circulated to a group of experts and provides an unbiased assessment of the risks.
- 28. C - The Time and Material (T&M) contract will allow the contract to change as the project scope changes.
- 29. D - This statement describes the Develop Project Management Plan process.
- 30. B - In the case of pull information, the information may be kept at repository; and people may not know the existence of the information. Hence choice B is correct.
- 31. B - Stage Gates, Phase Gates and Kill Points refer to the same term and refer to a phase end review with the objective of obtaining authorization to close the current phase and starting the next one. This is a retrospective review of the current phase. The phase planning, on the other hand, is carried out early during the planning phase of the project.
- 32. A - Implement risk response process is where the agreed upon strategies are implemented.
- 33. D - Requirements Traceability Matrix is an output of the Collect Requirements process. It is used for tracing requirements to project scope, objectives, and test strategy. Tracing requirements to project risk is not a valid use.
- 34. A - The Bill of Material (BOM) is not used as an input in the Create WBS process. The other three are valid inputs.
- 35. A - During the procurement process, predefined criteria are used to select vendors to supply goods and services. Circumventing this process to benefit a friend is a conflict of interest and is unfair to other vendors competing in good faith. The project management code of ethics demands that

- practitioners adhere to its standards at all times. The best response is to notify the project stakeholders that you have a conflict of interest, and excuse yourself from the selection committee.
- 36. C** - The Identify Risks process is an ongoing, iterative process as risks are often identified throughout the project's life cycle.
- 37. D** - Risk categories provide a structure that ensures a comprehensive process of systematically identifying risks and contribute to the effectiveness and quality of the process.
- 38. A** - Create WBS is a process in the Project Scope Management area, while the other options are all Project Time Management processes.
- 39. A** - The method used by most project management software packages to construct a project schedule network diagram is Activity-On-Arrow (AOA). This uses boxes or rectangles, called nodes to represent activities and connects them with arrows showing the logical relationship between them.
- 40. A** - The WBS is a hierarchical decomposition of the work to be executed by the project team and defines the total scope of the project. It represents the work specified in the current approved project scope statement.
- 41. C** - Creating the WBS is a very important process, but often a previous WBS can be used as a template to save time and the potential rework of forgetting something important.
- 42. A** - Finish to Start relationships indicate that the next task is not able to start until the one preceding it is completed. This is the most commonly used type of activity relationship.
- 43. A** - Since you have little authority over the projects you manage, you are working for a weak matrix organization. In such organizations the functional managers have more authority. You need to use the 'Negotiation' tool and technique from the Acquire Project Team process in order to obtain the required resources from the functional managers.
- 44. A** - A quality audit should be a structured process performed by an independent entity to provide the best results.
- 45. C** - A hierarchical-type organization chart can clearly show roles and reporting relationships within a team.
- 46. D** - A project initiator or sponsor external to the project, at a level that is appropriate to funding the project, authorizes the project charter.
- 47. A** - The project manager needs to recognize that the stakeholders could have conflicting interests and objectives. It is the responsibility of the project manager to successfully manage the stakeholders' expectations.
- 48. D** - While it is not feasible to invite everyone to the risk identification meetings, everybody should be encouraged to identify risks as they encounter them.
- 49. C** - Upper and lower control limits allow the control chart to serve its purpose of indicating when a process is in or out of control.
- 50. A** - Rolling Wave Planning is a technique used to create a more detailed work plan while keeping the right level of detail for each activity - activities happening sooner have more detail than those further in the future.

Exercise No 15.1 : Control Schedule

Each of these scenarios describes a schedule compression technique.

Classify each as one of the following possibilities:

- Fast tracking
- Crashing

Question	Description	Type
1	The project Manager starts coding before getting requirement sign off from the customer.	
2	Ben got his team to put in extra hours to complete an activity on time.	
3	The book publishing team started working on format in parallel while the content was getting reviewed by the academic team.	
4	Due to few issues, the project was behind schedule. In order to meet timelines, Steve asked the team to work extra hours.	

Answer | Exercise No 15.1 : Control Schedule

Question	Description	Type
1	The project Manager starts coding before getting requirement sign off from the customer. Since the activities are performed in parallel – it's fast tracking.	Fast Tracking
2	Ben got his team to put in extra hours to complete an activity on time. Shortening the activity duration by allocating extra people or extra time is crashing.	Crashing
3	The book publishing team started working on format in parallel while the content was getting reviewed by the academic team. Since the activities are performed in parallel – it's fast tracking.	Fast Tracking
4	Due to few issues, the project was behind schedule. In order to meet timelines, Steve asked the team to work extra hours. Here again, extra resources are being employed – hence crashing.	Crashing

Exercise No 16.1 : EVM

1. You are given four team members to rollout optimized integration touch points in a Line of Business (LOB) system. There are eight touch points to be completed. According to the plan you should have completed at least 50 percent of the work in first 10 days. You have only 20 days to complete the project. You are worried that your team is already doing overtime and has used at least 55 percent of the allocated hours. On the other hand the team was only able to complete 40 percent of the work. Working hours are from 9 A.M to 6 P.M with one hour of Lunch and per hour billing rate for each of the team member is \$20 Calculate the SPI and CPI along with the CV and SV.

Answer | Exercise No 16.1 : EVM

Answer 1:

Values	Total	Description
BAC	12800.00	4 team members for 20 days assuming 8 hours per day
PV	6400.00	50% of the work should have been completed
EV	5120.00	40% of work completed
AC	7040.00	55% of the efforts spent
SPI	0.80	EV/PV
SV	-1280.00	EV-PV
CPI	0.73	EV/AC
CV	-1920.00	EV- AC

17.1 - PMP Lite Mock Exam 2 Practice Questions

1. You are managing a multi-million dollar project, and discover several critical pieces of data in the project information repository have been modified without authorization. What should you do?
 - A. Determine the extent of the data breach, and implement security procedures to prevent a recurrence.
 - B. Determine the extent of the data breach and notify the appropriate project and company staff of the incident.
 - C. Determine the extent of the data breach, and restore the modified data from a backup.
 - D. Determine the extent of the data breach, and setup auditing to track further unauthorized access.
2. If you are developing a Project Management Plan, how should you determine the level of detail to be included in the plan?
 - A. Always only provide a summary or high level plan
 - B. Include only the details your manager specifically requested
 - C. Always provide the maximum level of detail possible
 - D. Provide the level of detail based on the project complexity and application area
3. If you want to have multiple vendors bid on your contract, what is the best way to ensure that all vendors have the same information before bidding?
 - A. Issue a standard request for bid and do not allow any questions
 - B. Hold a bidder conference
 - C. Communicate only through email
 - D. Develop a qualified sellers list
4. Randy is managing a project and identifies that there are 8 stakeholders in the project. He is worried that he might end up with an unmanageable number of communication channels. In your view, how many communication channels does Randy have to plan for?
 - A. 64 channels
 - B. 56 channels
 - C. 8 channels
 - D. 28 channels
5. Julie is currently populating her project's stakeholder register with the names and details of the people identified during the Identify Stakeholders process. Some of these people are not supporting the project but they can directly influence the project. Julie is adding these people to her project's stakeholder register because?
 - A. These people are negative stakeholders and they have to be closely managed.
 - B. Although these people are not stakeholders, they have influence over the project.

- C. Julie is adding them to the stakeholder register as they are potential project stakeholders.
 - D. Although these are not stakeholders, their names were identified during the Identify Stakeholders process.
6. You have been asked to establish a project charter for your new project. According to PMBOK, who normally has the responsibility to authorize the charter?
- A. Company president or CEO
 - B. Project initiator or sponsor
 - C. Key project stakeholders
 - D. Project manager
7. In general, Perform Qualitative Risk Analysis is:
- A. not often completed
 - B. complete and 100% accurate
 - C. in-depth and thorough
 - D. quick and cost-effective
8. As a project manager, you are performing various project performance measurements to assess the magnitude of variation. You then attempt to determine the cause and decide whether corrective action is required. This would be known as:
- A. Scope Analysis
 - B. Variance Analysis
 - C. Performance Reporting
 - D. Configuration Management
9. Two efficiency indicators that reflect the cost and schedule performance of a project are:
- A. Cost Projection Index (CPI) and Schedule Projection Index (SPI)
 - B. Cost Performance Index (CPI) and Schedule Performance Index (SPI)
 - C. Actual Cost (AC) and Planned Value (PV)
 - D. Cost Pricing Index (CPI) and Schedule Performance Index (SPI)
10. Sarah has just started the Identify Stakeholders process for her project. She is currently looking for a template for the stakeholder register so that she doesn't have to reinvent the wheel. Where can she find stakeholder register templates?
- A. Organizational process assets
 - B. Project charter
 - C. Project management plan
 - D. Enterprise environmental factors

- 11.** If you want to compress a project schedule, what are two of the recommended alternatives to consider?
- A. Fast Tracking and Schedule Network Analysis
 - B. Crashing and Fast Tracking
 - C. Resource Leveling and What-If Scenario Analysis
 - D. Crashing and Schedule Network Analysis
- 12.** A project manager wishes to expand an existing list of sellers. Which of the following techniques should she consider?
- A. Bidder conferences
 - B. Make or buy analysis
 - C. Analytical techniques
 - D. Advertising
- 13.** Which of these tools is NOT a part of the Seven Basic Tools of Quality?
- A. Control Chart
 - B. Statistical Sampling
 - C. Flowcharting
 - D. Scatter Diagram
- 14.** Which quality control technique or tool should be used when trying to determine the cause of a major defect?
- A. Pareto Chart
 - B. Control Chart
 - C. Histogram
 - D. Fishbone diagram
- 15.** During a project update meeting for the key stakeholders, the schedule of some project activities was challenged. The VP Operations challenged that some of the critical path activities cannot be executed as scheduled as they will disturb critical operations. The VP has requested rescheduling of these tasks so that they are carried out during the non-working times of the business. What should the project manager do first?
- A. Analyze the impact of change
 - B. Record the issue in the issue log
 - C. Send the change request to the change control board for the approval
 - D. Produce a change request
- 16.** Why is it important to have a staff release plan for people within the project team?
- A. It helps people manage their time.
 - B. The project protects itself from lawsuit.

- C. It is not important.
 - D. The project saves money by releasing people from the project at the right time and morale is also improved.
- 17.** Midway through a project, a project manager determined that the project was running way behind schedule. If the project manager needs to shorten the project schedule, without changing the project scope, which of the following schedule compression techniques could be applied?
- A. Crashing
 - B. Reserve Analysis
 - C. Forecasting
 - D. Last Tracking
- 18.** At the end of a project, what will your schedule variance be equal to?
- A. Zero
 - B. Equal to the total PV
 - C. One
 - D. Equal to the total EV
- 19.** Quantitative risk analysis should be performed:
- A. only on risks identified by the project manager
 - B. only in extreme cases
 - C. only on prioritized risks
 - D. on all risks
- 20.** While a co-worker is out on vacation for two weeks, you are standing in for her as the project manager of a process improvement project. During project meetings it becomes apparent that there is a great deal of conflict between stakeholders, and as you review the project documentation you discover that the vacationing project manager has made several critical project decisions without collecting inputs from the stakeholders. Some of these decisions resulted in changes to the project scope, and did not go through the formal change management process. What should you do?
- A. Do nothing as you are a temporary project manager.
 - B. Notify the project stakeholders and sponsor that the project scope has changed without proper authorization.
 - C. Update the requirements document to include the scope changes.
 - D. Make a formal change request to incorporate all previously unauthorized changes made to the scope.
- 21.** While analyzing a project, the project manager calculated the ratio of the Earned Value (EV) to the Actual Costs (AC) and obtained a value of 1.2. The project manager decided that this

was an unfavorable condition to the project and decided to take corrective action. What is your view?

- A. The project manager is correct. The ratio of EV to AC is called Cost Performance Index and a ratio greater than 1 is unfavorable to the project
- B. The project manager is not correct. The ratio of EV to AC is called Cost Variance and a ratio greater than 1 is favorable to the project.
- C. The project manager is not correct. The ratio of EV to AC is called Cost Performance Index and a ratio greater than 1 is favorable to the project
- D. The project manager is correct. The ratio of EV to AC is called Cost Variance and a ratio greater than 1 is unfavorable to the project

22. Which of these is not an approved Estimate Activity Durations technique?

- A. Three Point Estimating
- B. Parametric Estimating
- C. Analogous Estimating
- D. Critical Path Estimation

23. If you are working on a project where there is no definite project detailed scope, but similar projects have been completed in the past, what is the correct Estimate Activity Durations tool to use?

- A. Analogous Estimating
- B. Parametric Estimating
- C. Critical Path Estimation
- D. Three Point Estimating

24. As project manager, you would like to show the relationship between two variables to help your project team understand the quality impacts better. Which tool should be used?

- A. Scatter Diagram
- B. Run Chart
- C. Fishbone Diagram
- D. Pareto Chart

25. You have been called in to give an executive presentation on the status of your project. Just before you walk into the meeting, you are informed that a critical resource for the project is no longer available, and could result in a substantial delay to the project. However, you believe there may be an alternative resource that could be used. What do you tell the executive committee?

- A. Wait until you have all facts before you advise the executive team.
- B. Ask your deputy project manager to add this to the risk database, but do not mention it to the executive team.

- C. Advise the executive team of the situation exactly as you know it to be at that moment.
- D. Do not mention it to the executive team because you know that you have enough reserve to support a 2 month delay.

26. In a cause and effect diagram, which of these is not a potential cause?

- A. Personnel
- B. Problem statement
- C. Time
- D. Material

27. Which of the following is inaccurately represented by the term Progressive elaboration?

- A. Changes to project scope
- B. Rolling wave planning
- C. Detailing out the product requirements which were developed during the initiation process.
- D. Production of fabrication and construction drawings from the design drawings for a chemical plant.

28. Which document describes the project's deliverables and the work required to create those deliverables?

- A. Project authorization document
- B. Project scope statement
- C. Project scope management plan
- D. Project charter

29. During a presentation to management, you want to display the project schedule with only the key deliverables displayed. What is the correct tool for this purpose?

- A. Project schedule network diagram
- B. Critical path network
- C. Milestone chart
- D. Critical chain diagram

30. Susan is about to review her project stakeholder management plan to make some necessary adjustments. She has got her project management plan, the recent issue log and the work performance data. Which of the following inputs is still missing for this process?

- A. Project charter
- B. Stakeholder management plan
- C. Project documents
- D. Communication management plan

- 31.** Which of these items are important to address when determining each person's role in the project team?
- A. Role, authority, responsibility, and competency
 - B. Role, responsibility, and competency
 - C. Role and responsibility
 - D. Role, authority, and competency
- 32.** If you want to reduce the number of quality inspections and thus reduce the cost of quality control for your project, which technique should be used?
- A. Run Chart
 - B. Defect Repair Review
 - C. Statistical Sampling
 - D. Pareto Chart
- 33.** When beginning a new outsourcing project, what is the best way to determine which companies you should request a bid from?
- A. Send your proposal to the company you last worked with
 - B. Have someone else manage this part of the process
 - C. Send your proposal to everyone
 - D. Consult the qualified sellers list
- 34.** Which of the following is not a general management technique used to generate different approaches to execute and perform the project work?
- A. Lateral thinking
 - B. Analysis of alternatives
 - C. Map Out
 - D. Brainstorming
- 35.** Your boss advises you that your final project schedule and budget must be ready to present to the executive steering committee at a meeting later this week. A draft schedule has been completed based on estimates provided by your team. However, they have not yet had a chance to review the schedule to be sure their estimates are appropriate and realistic. Timing constraints make it impossible to complete this review before the meeting. What is the best approach?
- A. Present the estimate to your boss first and explain the basis of estimate.
 - B. Declare the faulty estimate to the executive steering committee.
 - C. Present the estimate in the meeting as a rough order of magnitude (ROM) estimate with an accuracy range of plusminus 5%
 - D. Deny the request to present the estimate to the executive steering committee.

- 36.** Where would you find a detailed list and description of specific project assumptions associated with the project?
- A. Project charter
 - B. Project scope statement
 - C. Project configuration document
 - D. Change management plan
- 37.** The date through which the project has provided actual status and accomplishments is called:
- A. Data Date (DD)
 - B. Due Date (DD)
 - C. Project Date (PD)
 - D. Reporting Date (RD)
- 38.** Which of these is NOT a risk diagramming technique?
- A. System or process flow charts
 - B. Cause and effect diagram
 - C. RACI chart
 - D. Influence diagrams
- 39.** Which of the following will be MOST useful to Develop the Project Team?
- A. Organizational charts
 - B. Colocation
 - C. Acquisition
 - D. Conflict management
- 40.** A hierarchical structure of resources organized by resource type category and resource type used in resource leveling schedules is known as:
- A. Team structure
 - B. Resource Pool
 - C. Organization breakdown Structure
 - D. Resource Breakdown Structure
- 41.** A Project Manager's primary professional responsibility is towards:
- A. The performing organization
 - B. The project sponsor
 - C. All stakeholders
 - D. Customers

42. What does a Cost Performance Index (CPI) of more than 1.0 indicate?

- A. The project is over budget.
- B. The project is right on budget.
- C. The project is under budget.
- D. The project is ahead of schedule.

43. Which of the following statements is correct?

- A. A collection of unrelated programs can constitute a portfolio.
- B. The scope of a portfolio is typically smaller than that of a program.
- C. A program is a group of unrelated projects.
- D. A program need not consist of projects.

44. A project team member finds that the color scheme of the webpage he is designing appears too gaudy and decides to change it to a mellowed down color scheme. The independent testing team flags this as a defect and there is a heated discussion between the team member and the testing team. What is your view?

- A. The testing team is incorrect in flagging this as a defect. This is an example of expert judgment, wherein historical expertise is being brought into the project.
- B. The testing team is correct. Even though the new color scheme is more pleasing than the old one, the appropriate change management process has not been followed and the work product is not as per design.
- C. The testing team is not right in flagging this down. The color scheme is a simple matter and the new colors are definitely more pleasing than the old ones.
- D. The testing team is correct in flagging this down. The team member should have sent a note along with the work product indicating that the color scheme change had been made.

- 45.** Which of the following items needs to be kept in mind when relying on risk identification checklists?
- A. They are biased.
 - B. They are not exhaustive.
 - C. They are often inaccurate.
 - D. They are easy to prepare.
- 46.** As an external vendor, you are managing a complex software project that has been contracted on Time & Material (T&M). One of your team-members reports a break-through in automating some of the testing activities. This will potentially result in cost savings to the project as well as the project getting completed ahead of schedule by a month. Which of the following actions would you take?
- A. This is confidential information within your project team and need not be shared with the customer. The savings will be additional profits on the project.
 - B. Communicate the current status and inform the customer that you will be incorporating some additional features to use up the savings in cost and time since it has been budgeted for.
 - C. Communicate the current status to the customer and indicate the potential changes to cost and schedule.
 - D. Communicate the savings in cost and time to the customer. At the end of the project, notify your billing department that they need to prepare an invoice for 50% of the cost being saved.
- 47.** What is the advantage of preparing an estimate of costs by an outside professional estimator?
- A. To determine if a lump sum contract should be used
 - B. To determine the project funding limits
 - C. To hold vendors accountable to a certain price
 - D. To serve as a comparison point for incoming estimates
- 48.** Which of the following may help in ensuring that certain bidders in the procurement process do not receive preferential treatment that all prospective sellers have a clear and common understanding of the procurement?
- A. Use of weighted criteria
 - B. Use of bidder conferences
 - C. Use of screening techniques
 - D. Use of expert judgment

- 49.** If you have an unresolved issue while working on a project, what is the best way to communicate that issue?
- A. Assume that someone else is already working on it
 - B. Write an email describing the issue
 - C. Create an issue log
 - D. Complain to a fellow colleague
- 50.** Your manager has asked you to include the Human Resource Management Plan and the Schedule Management Plan in your Project Management Plan. Is this the appropriate place for these items?
- A. No, these are stand alone documents only.
 - B. Yes, you should unquestioningly include anything your manager suggests.
 - C. No, these documents should not be created until later in the project.
 - D. Yes, include them in the Project Management Plan.
- 51.** On obtaining the project charter, the Project Manager of a project immediately starts acquiring the project team. Is this correct?
- A. Yes. Acquisition of the project team is primarily an Initiating Process Group activity.
 - B. Yes. The project manager needs to get the team together as soon as the project starts.
 - C. No. It is the responsibility of the project sponsor to provide the team for execution.
 - D. No. Acquisition of the project team is primarily an Executing Process Group activity.

Answers 17.1

1. B - Notification of the appropriate staff of an information security breach, and providing detail to assist with an investigation is the appropriate response. The project manager is responsible for maintaining an accurate project information base and protecting the intellectual property of others, per the code of ethics. Failing to notify project or corporate staff that there has been unauthorized access to critical information violates the PMI code.
2. D - The level of detail required in a Project Management Plan would vary by project and would include only the details necessary for the project.
3. B - A bidder conference is a good way to ensure all bidders have the same information at the same time and to ensure fairness and equity within the bidding process.
4. D - The correct response is 28. The formula to identify the number of communication channels is $n*(n-1)/2$, where n is the number of stakeholders. Hence in this case, it works out to $8*(8-1)/2 = 28$.
5. A - Projects have both positive and negative stakeholders. All of these stakeholders need to be carefully managed and their details must be recorded in the project stakeholder register.
6. B - The project initiator or sponsor external to the project authorizes the project charter. However, a project manager should be involved in the process as early as possible.
7. D - Perform Qualitative Risk Analysis is quicker than Perform Quantitative Risk Analysis which is sometimes not required by the project.
8. B - This is known as Variance Analysis. As project manager, you would then attempt to determine the cause of the Variance, relative to the scope baseline and then decide on whether corrective action is required.
9. B - The Cost Performance Index (CPI) and the Schedule Performance Index (SPI) are two efficiency indicators in the project to reflect the cost and schedule performance of the project.
10. A - Neither the project charter nor the project management plan contains any project document templates. Templates are organizational process assets.
11. B - Crashing and fast tracking can compress the project's schedule when necessary, but might come at a higher cost and rework potential.
12. D - Advertising is a good avenue to expand existing lists of sellers. Advertisements can be placed in general circulation publications in order to achieve this.
13. B - The seven basic tools of quality are: cause and effect diagrams, control charts, flowcharting, histograms, Pareto charts, check sheets, and scatter diagrams.
14. D - A fishbone diagram, also called a cause-and-effect diagram, helps identify potential causes of an issue or problem.
15. B - All of the tasks in the choices need to be carried out. However, the question is asking for the task to be carried out first. The identified issue must be documented in the project's issue log first. This should be captured and recorded during the meeting. Rest of the tasks can be performed after the meeting.
16. D - A staff release plan provides a clean break point for an individual and saves the project money in the process.
17. A - Crashing is the technique that can be applied to compress the project schedule without changing the project scope. The other technique is Fast tracking.
18. A - The schedule variance is the earned value minus the planned value. At the end of the project, all of the planned values should be earned and the difference should be zero.

- 19. C** - Since the quantitative risk analysis is a more in-depth process, it should only be performed on prioritized risks to minimize impact to the overall project schedule.
- 20. B** - The best choice is to notify the stakeholders that the scope has changed without authorization. Intentionally not following project process and policies for any reason is unacceptable. Knowingly ignoring an error in scope, schedule, cost, or other project factor, and not adhering to policies is a violation of PMI's code of ethics. Further, project managers are bound by the code to report ethics violations to appropriate management.
- 21. C** - The project manager is not correct. Cost Performance Index (CPI) is the ratio of EV to AC. A value greater than 1 is a favorable condition for the project. The project manager has incorrectly interpreted the situation.
- 22. D** - Analogous, parametric, and three-point estimating techniques are all accepted practices for determining the correct amount of time required for a portion of the project. The Critical Path Analysis techniques evaluates the whole project schedule.
- 23. A** - Analogous estimation relies on comparing a project to previous such projects that were similar in nature.
- 24. A** - A scatter diagram plots several occurrences of two variables (one on each axis). A relationship can then often be determine between the two variables based on how closely they fit a geometric model.
- 25. C** - Include the newly discovered information in your executive presentation. Failure to disclose a known risk until a mitigation plan is developed is a violation of the PMI code of ethics. It mandates that project managers are to be truthful in their communication and provide accurate and timely information.
- 26. B** - A cause-and-effect diagram helps determining the root cause behind a problem statement. The potential causes of a specific effect fall into these categories: time, machine, method, material, energy, measurement, personnel, and environment.
- 27. A** - The distinction between Progressive elaboration and Scope Creep needs to be understood since the two terms are different. The changes to scope (especially in an uncontrolled manner) are called scope creep. In contrast, Progressive elaboration involves building on, or elaborating the output of a previous phase.
- 28. B** - The project scope statement is the correct response. This document describes the project's deliverables in detail and the work that is required to create those deliverables. It also forms the baseline for evaluating whether requests for changes are within or outside the project's boundaries.
- 29. C** - A milestone chart displays only the key deliverables and is simple and easy to understand.
- 30. C** - Since Susan is planning to adjust her project stakeholder management plan, this implies that she is about to start the Control Stakeholder Engagement process. The stakeholder management plan and the communication management plan are the components of the project management plan, hence these are already included. The project charter is not an input of the Control Stakeholder Engagement process. The missing input to the process is the project documents.
- 31. A** - All four of these are important to consider when considering someone for a position within the project team: role, authority, responsibility, and competency.
- 32. C** - Statistical sampling will provide sufficient inspection to ensure a high likelihood of a quality product, while saving money for the project.
- 33. D** - A qualified seller list is a list of sellers that have been pre-screened for their qualifications and past experience, so that procurements are directed only to likely sellers who can work on the project.

- 34. C** - Alternatives Identification concerns itself with identifying techniques to generate different approaches to execute and perform the work of the project. Map-Out is not a valid technique - the other three namely brainstorming, lateral thinking and analysis of alternatives are techniques used to generate ideas for different approaches.
- 35. A** - You have a rough order of magnitude (ROM) estimate as you didn't have the chance to review your estimate and make it more accurate. However, declaring a rough order of magnitude estimate as an accurate estimate is unethical. ROM estimates usually have a range of -25% to +75% and are not necessarily faulty. Denying the request is not advisable. The best option is to present the estimate to your boss first and explain the basis of the estimate. He can then decide if he wishes to present this to the steering committee or if he would like to postpone the meeting.
- 36. B** - The Project scope statement lists and describes the specific project assumptions associated with project scope and the potential impact of those assumptions if they prove to be false. The assumptions listed in the detailed project scope statement are typically more numerous and detailed than the project assumptions listed in the project charter.
- 37. A** - The date through which the project has provided actual status and accomplishments is called the data date. It is also known as the as-of date or the status date
- 38. C** - Risk diagramming techniques can include: cause-and-effect diagrams (also known as the fishbone diagrams), flowcharts, and influence diagrams.
- 39. B** - Colocation is a tool and technique of the Develop Project Team process. The rest are the tools and techniques of the other three Human Resource Management processes.
- 40. D** - The Resource Breakdown Structure (RBS) is a hierarchical structure of resources by resource category and resource type used in resource leveling schedules and to develop resource-limited schedules. This may also be used to identify and analyze project human resource assignments.
- 41. C** - A project manager's professional responsibilities are not limited to any one of the stakeholders. The other choices are correct but not complete by themselves. Expectations of every project stakeholder need to be managed.
- 42. C** - The CPI is calculated as the earned value divided by the actual cost. An index of greater than one indicates that you have spent less than you forecasted to this point.
- 43. A** - A portfolio refers to a collection of projects or programs that are grouped together to facilitate their effective management. The projects or programs need not be directly related or interdependent.
- 44. B** - The testing team is correct in their findings. Even though the new color scheme might be a better choice than the old one, all changes need to follow the change management process and go through the appropriate change and approval process.
- 45. B** - While the risk identification checklist is a useful tool, it should be used in combination with the other tools, since it is impossible to cover all scenarios on one checklist.
- 46. C** - A project manager should always communicate an accurate statement of the project status. There could be subsequent actions to discuss how the savings could be best utilized, whether there can be any cost sharing etc. - but they would need to be done following the appropriate procedure.
- 47. D** - An estimate of costs will serve as a benchmark on proposed responses. Any significant differences in cost estimates can be an indication that the procurement statement of work was deficient, ambiguous or the prospective sellers failed to understand the work.
- 48. B** - Bidder conferences allow prospective sellers and buyers to meet prior to submission of a bid. This ensures that all prospective sellers have a clear and common understanding of the procurement. This usually prevents any bidders from receiving preferential treatment.
- 49. C** - An issue log allows you to communicate, track, and resolve project issues.

- 50.** D - These are subsidiary plans and should be included in the Project Management Plan.
- 51.** D - No, the project team is not acquired immediately after signing of the project charter. Acquisition of a project team starts with HR management planning in the planning process group, followed by the Acquisition of the team in the execution phase. The other answers are wrong because the acquisition of the project team is mentioned in the wrong phase.