

## Self-Assessment Questions for Module 06 Project Time Management

**Question 1: What is the duration of any milestone in a project schedule in calendar units?**

- A.) 0 units
- B.) 1 unit
- C.) The duration of the predecessor activity
- D.) The duration of the successor activity

**Question 2: A schedule has two activities, i.e., “Pour Concrete” and “Cure Concrete”. Once laid, concrete must be cured with water to attain its designed strength. The duration of the curing depends upon the concrete mix and the desired strength of the concrete. What is the type of dependency between these two activities?**

- A.) Discretionary Dependency
- B.) Mandatory Dependency
- C.) External Dependency
- D.) There is no dependency between the activities

**Question 3: A construction company builds houses for its clients. Every project has an activity titled “Provide Security”, which provides the security to the project team and raw materials until the house is accepted by the client and handed off. “Obtain Acceptance” is the activity that obtains the client’s acceptance and includes any rework, if applicable. What type of relationship exists between “Provide Security” and “Obtain Acceptance” in this scenario?**

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

**Question 4: Henry is managing a construction project in a foreign country. This is the first time Henry or his company has ever constructed anything in this country. This creates frustration for Henry during the Estimate Activity Resources process. Henry needs the estimates now so that he can invite contractors to respond to Requests for Proposal. Which of the following techniques will help Henry estimate resources for his project's activities with a reasonable degree of confidence?**

- A.) Published Estimating Data
- B.) Top-Down Estimating
- C.) Bottom-Up Estimating
- D.) Rolling Wave Planning

**Question 5: Julie's project is falling behind schedule. Upper management is willing to inject additional funds into the project in order to complete the project on time. However, many project activities have Discretionary Dependencies that cannot be removed. Which of the following techniques can help Julie complete the project on time in this scenario?**

- A.) Progressive Elaboration
- B.) Reserve Analysis
- C.) Fast-Tracking
- D.) Crashing

**Question 6: Neil is managing a next generation car design project. A high-level project WBS has been created but the project activities cannot be determined because the client's exact requirements are not stated. The client wants Neil to have enough flexibility in his schedule so that he may easily add or remove requirements. Which of the following techniques should Neil use for the decomposition of his project WBS components into project activities?**

- A.) Templates
- B.) Rolling Wave Planning
- C.) Fast tracking
- D.) Applying Leads and Lags

**Question 7: Which of the following is the correct statement regarding Crashing and Fast-Tracking?**

- A.) Crashing removes Mandatory Dependencies; Fast-Tracking removes Discretionary dependencies.
- B.) Crashing removes Discretionary Dependencies; Fast-Tracking removes Mandatory Dependencies.
- C.) Crashing requires performing activities in parallel; Fast-Tracking requires addition of resources.
- D.) Crashing requires addition of resources; Fast-Tracking requires performing activities in parallel.

**Question 8: A project requires securing government approval before the project work can begin. According to government policy it should take 30 days for the government to issue the approval provided that all necessary paperwork is complete. In the past, it has been observed that 45 days is the most likely turnaround time for such applications approval. If any objection is imposed due to incomplete paperwork, it may take up to 90 days to secure the approval. What would be the expected activity duration using PERT?**

- A.) 30 days
- B.) 45 days
- C.) 55 days
- D.) 50 days

**Question 9: During the execution of a project, the project manager feels that a major adjustment to the project schedule needs to be made. This adjustment will affect the project baselines. What should be done as the first step?**

- A.) Issuing a Change Request
- B.) Asking the sponsor for an intervention
- C.) Adjusting the project schedule
- D.) Updating the project documents

**Question 10: Sandy has recently been hired as a project manager for a construction company. Her next assignment is to manage the construction of a hotel. She has created the project WBS and now wants to decompose it to the activity level. Sandy's company has strict policies regarding most of the construction activities, their sequence and their relationships. Which of the following is best for Sandy to use to determine her project's activities?**

- A.) Rolling Wave Planning
- B.) Expert Judgment
- C.) Templates
- D.) Enterprise Environmental Factors

**Question 11: Which of the following techniques is associated with the Program Evaluation and Review Technique?**

- A.) Parametric Estimating
- B.) Analogous Estimating
- C.) Three-Point Estimating
- D.) Top-down Estimating

**Question 12: A schedule has two tasks that cannot be started at the same time. Task B can only be started 10 days after Task A has started. How can these tasks be scheduled in a scheduling tool?**

- A.) Start-to-Finish relationship between the activities, with a 10-day lag on Activity B.
- B.) Start-to-Finish relationship between the activities, with a 10-day lead on Activity B.
- C.) Start-to-Start relationship between the activities, with a 10-day lag on Activity B.
- D.) Start-to-Start relationship between the activities, with a 10-day lead on Activity B.

**Question 13: A project's WBS has been decomposed into activities. However, the project activities are still very complex and the activity resources cannot be estimated with a reasonable degree of confidence. Which of the following estimating tools and techniques can be used in this case that would produce the best results?**

- A.) Expert Judgment
- B.) Bottom-Up Estimating
- C.) Alternative Analysis
- D.) Published Estimating Data

**Question 14: Jim has just completed defining his project activities. The project Network Diagram has been created and the necessary resources have been assigned to the project tasks. Jim wants to make sure that none of the resources is overloaded as a result of these task assignments. Which of the following techniques will allow Jim to adjust the project schedule so that none of the resources are overloaded?**

- A.) Crashing
- B.) Fast-Tracking
- C.) Critical Path Method
- D.) Resource Leveling

**Question 15: Which of the following is also known as a "Resource-Constrained Critical Path"?**

- A.) Critical Chain
- B.) Slack
- C.) Buffer
- D.) Total float

## Answer Sheet for Self-Assessment 06

Question Number	My Answer	Correct	Incorrect
Question 01		<input type="checkbox"/>	<input type="checkbox"/>
Question 02		<input type="checkbox"/>	<input type="checkbox"/>
Question 03		<input type="checkbox"/>	<input type="checkbox"/>
Question 04		<input type="checkbox"/>	<input type="checkbox"/>
Question 05		<input type="checkbox"/>	<input type="checkbox"/>
Question 06		<input type="checkbox"/>	<input type="checkbox"/>
Question 07		<input type="checkbox"/>	<input type="checkbox"/>
Question 08		<input type="checkbox"/>	<input type="checkbox"/>
Question 09		<input type="checkbox"/>	<input type="checkbox"/>
Question 10		<input type="checkbox"/>	<input type="checkbox"/>
Question 11		<input type="checkbox"/>	<input type="checkbox"/>
Question 12		<input type="checkbox"/>	<input type="checkbox"/>
Question 13		<input type="checkbox"/>	<input type="checkbox"/>
Question 14		<input type="checkbox"/>	<input type="checkbox"/>
Question 15		<input type="checkbox"/>	<input type="checkbox"/>
Total Number			
% Correct		_____ %	

To calculate the % correct, divide the "total correct" by 0.15. Example: If you have 13 correct then calculate  $13 / 0.15 = 86.6\%$

## Answers for Self-Assessment 06

Question Number	Correct Answer
Question 01	A
Question 02	B
Question 03	C
Question 04	A
Question 05	D
Question 06	B
Question 07	D
Question 08	D
Question 09	A
Question 10	C
Question 11	C
Question 12	C
Question 13	B
Question 14	D
Question 15	A

## Answers & Explanations for Self-Assessment 06

**Question 1: What is the duration of any milestone in a project schedule in calendar units?**

- A.) 0 units
- B.) 1 unit
- C.) The duration of the predecessor activity
- D.) The duration of the successor activity

Correct answer is **A**

*Explanation: A Milestone is a significant point or event in a project. Only project activities have durations in calendar units. Project Milestones have no durations.*

Reference: PMBOK Guide 5th Edition, pages 153

**Question 2: A schedule has two activities, i.e., “Pour Concrete” and “Cure Concrete”. Once laid, concrete must be cured with water to attain its designed strength. The duration of the curing depends upon the concrete mix and the desired strength of the concrete. What is the type of dependency between these two activities?**

- A.) Discretionary Dependency
- B.) Mandatory Dependency
- C.) External Dependency
- D.) There is no dependency between the activities

Correct answer is **B**

*Explanation: If concrete is not cured, it will not gain its desired strength levels. This is an example of Mandatory Dependency between two activities.*

Reference: PMBOK Guide 5th Edition, page 157

**Question 3: A construction company builds houses for its clients. Every project has an activity titled “Provide Security”, which provides the security to the project team and raw materials until the house is accepted by the client and handed off. “Obtain Acceptance” is the activity that obtains the client’s acceptance and includes any rework, if applicable. What type of relationship exists between “Provide Security” and “Obtain Acceptance” in this scenario?**

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



D.) Finish to Start

Correct answer is **C**

*Explanation: In this scenario, the "Provide Security" activity cannot be finished until the "Obtain Acceptance" is completed. Therefore, there is a Finish-to-Finish relationship between these two activities.*

Reference: PMBOK Guide 5th Edition, page 156

**Question 4: Henry is managing a construction project in a foreign country. This is the first time Henry or his company has ever constructed anything in this country. This creates frustration for Henry during the Estimate Activity Resources process. Henry needs the estimates now so that he can invite contractors to respond to Requests for Proposal. Which of the following techniques will help Henry estimate resources for his project's activities with a reasonable degree of confidence?**

- A.) Published Estimating Data
- B.) Top-Down Estimating
- C.) Bottom-Up Estimating
- D.) Rolling Wave Planning

Correct answer is **A**

*Explanation: Neither Top-Down Estimating nor Bottom-Up Estimating will help Henry because he has no previous projects to refer to in this country. However, local Published Estimating Data may be helpful. Rolling Wave Planning is not applicable because Henry needs the estimates immediately.*

Reference: PMBOK Guide 5th Edition, page 164

**Question 5: Julie's project is falling behind schedule. Upper management is willing to inject additional funds into the project in order to complete the project on time. However, many project activities have Discretionary Dependencies that cannot be removed. Which of the following techniques can help Julie complete the project on time in this scenario?**

- A.) Progressive Elaboration
- B.) Reserve Analysis
- C.) Fast-Tracking
- D.) Crashing

Correct answer is **D**

*Explanation: Julie needs to apply a schedule compression technique. Progressive elaboration and reserve analysis won't help us. Fast-Tracking cannot be applied because the scenario mentions that some Discretionary Dependencies cannot be removed. The scenario doesn't tell us the reason why they cannot be removed, so we simply have to take it at face value.*

*Since these dependencies cannot be removed it means that these activities cannot be performed in parallel (i.e. fast tracked), which means that crashing is the only applicable technique in this scenario. A further hint that crashing is the correct answer is the statement that "upper management is willing to inject additional funds into the project", which means that we have the necessary budget for adding more resources (i.e. crashing) the activities.*

Reference: PMBOK Guide 5th Edition, pages 181

**Question 6: Neil is managing a next generation car design project. A high-level project WBS has been created but the project activities cannot be determined because the client's exact requirements are not stated. The client wants Neil to have enough flexibility in his schedule so that he may easily add or remove requirements. Which of the following techniques should Neil use for the decomposition of his project WBS components into project activities?**

- A.) Templates
- B.) Rolling Wave Planning
- C.) Fast tracking
- D.) Applying Leads and Lags

Correct answer is **B**

*Explanation: Neil should use Progressive Elaboration in order to decompose his project's WBS. Rolling Wave Planning is the technique that complements Progressive Elaboration during the Define Activities process.*

Reference: PMBOK Guide 5th Edition, page 152

**Question 7: Which of the following is the correct statement regarding Crashing and Fast-Tracking?**

- A.) Crashing removes Mandatory Dependencies; Fast-Tracking removes Discretionary dependencies.
- B.) Crashing removes Discretionary Dependencies; Fast-Tracking removes Mandatory Dependencies.
- C.) Crashing requires performing activities in parallel; Fast-Tracking requires addition of resources.
- D.) Crashing requires addition of resources; Fast-Tracking requires performing activities in parallel.

Correct answer is **D**

*Explanation: Neither Crashing nor Fast-Tracking remove any Mandatory Dependencies from the project. Both are schedule compression techniques. Crashing requires the addition of resources while Fast-Tracking requires carrying out activities in parallel in order to compress the project schedule.*

Reference: PMBOK Guide 5th Edition, pages 181

**Question 8: A project requires securing government approval before the project work can begin. According to government policy it should take 30 days for the government to issue the approval provided that all necessary paperwork is complete. In the past, it has been observed that 45 days is the most likely turnaround time for such applications approval. If any objection is imposed due to incomplete paperwork, it may take up to 90 days to secure the approval. What would be the expected activity duration using PERT?**

- A.) 30 days
- B.) 45 days
- C.) 55 days
- D.) 50 days

Correct answer is **D**

*Explanation: PERT is a Three-Point Estimate. The PERT formula is "Duration = (Optimistic + 4\*Most Likely + Pessimistic)/6". Using this formula, we get an expected duration of 50 days.*

Reference: PMBOK Guide 5th Edition, page 171

**Question 9: During the execution of a project, the project manager feels that a major adjustment to the project schedule needs to be made. This adjustment will affect the project baselines. What should be done as the first step?**

- A.) Issuing a Change Request
- B.) Asking the sponsor for an intervention
- C.) Adjusting the project schedule
- D.) Updating the project documents

Correct answer is **A**

*Explanation: Proper change control procedures needs to be followed. This requires a change request to be issued as the first step.*

Reference: PMBOK Guide 5th Edition, page 191

**Question 10: Sandy has recently been hired as a project manager for a construction company. Her next assignment is to manage the construction of a hotel. She has created the project WBS and now wants to decompose it to the activity level. Sandy's company has strict policies regarding most of the construction activities, their sequence and their relationships. Which of the following is best for Sandy to use to determine her project's activities?**

- A.) Rolling Wave Planning
- B.) Expert Judgment
- C.) Templates
- D.) Enterprise Environmental Factors

Correct answer is **C**

*Explanation: Sandy must look for information from similar projects that were executed by her company. A standard activity list or a portion of an activity list from a previous project is often helpful as a template for a new project. Sandy should use one of the old similar project schedules as a template.*

Reference: PMBOK Guide 5th Edition, page 151

**Question 11: Which of the following techniques is associated with the Program Evaluation and Review Technique?**

- A.) Parametric Estimating
- B.) Analogous Estimating
- C.) Three-Point Estimating
- D.) Top-down Estimating

Correct answer is **C**

*Explanation: The Program Evaluation and Review Technique is also called PERT or Three-Point Estimating.*

Reference: PMBOK Guide 5th Edition, page 170

**Question 12: A schedule has two tasks that cannot be started at the same time. Task B can only be started 10 days after Task A has started. How can these tasks be scheduled in a scheduling tool?**

- A.) Start-to-Finish relationship between the activities, with a 10-day lag on Activity B.
- B.) Start-to-Finish relationship between the activities, with a 10-day lead on Activity B.
- C.) Start-to-Start relationship between the activities, with a 10-day lag on Activity B.
- D.) Start-to-Start relationship between the activities, with a 10-day lead on Activity B.

Correct answer is **C**

*Explanation: There is no dependency on the finish dates of either of these tasks. Therefore, this cannot be a Start-to-Finish relationship. This is a situation that can be managed by using a Start-to-Start relationship and putting a 10-day lag on Activity B.*

Reference: PMBOK Guide 5th Edition, pages 156, 158

**Question 13: A project's WBS has been decomposed into activities. However, the project activities are still very complex and the activity resources cannot be estimated with a reasonable degree of confidence. Which of the following estimating tools and techniques can be used in this case that would produce the best results?**

- A.) Expert Judgment
- B.) Bottom-Up Estimating
- C.) Alternative Analysis
- D.) Published Estimating Data

Correct answer is **B**

*Explanation: Think about which of the answer choices enables the highest degree of activity decomposition. The resources cannot be estimated because the activities are complex. Therefore, the best way is to further decompose the activities into smaller parts to develop a better estimate. This technique is called Bottom-Up Estimating.*

*Using the Bottom-up Estimating technique means decomposing a component into smaller components, estimating the smaller components and rolling up the totals. For the Estimate Activities Resources process, this technique is applied when an activity cannot be estimated with a reasonable degree of confidence. In such cases, the activity can be subdivided into smaller components so that the resource needs are better estimated.*

Reference: PMBOK Guide 5th Edition, page 164

**Question 14: Jim has just completed defining his project activities. The project Network Diagram has been created and the necessary resources have been assigned to the project tasks. Jim wants to make sure that none of the resources is overloaded as a result of these task assignments. Which of the following techniques will allow Jim to adjust the project schedule so that none of the resources are overloaded?**

- A.) Crashing
- B.) Fast-Tracking
- C.) Critical Path Method

D.) Resource Leveling

Correct answer is **D**

*Explanation: Resource Leveling is used when shared resources are only available at certain times or are available in limited quantities. Resource leveling is also used when resources have been over-allocated or overloaded.*

Reference: PMBOK Guide 5th Edition, page 179

**Question 15: Which of the following is also known as a "Resource-Constrained Critical Path"?**

A.) Critical Chain

B.) Slack

C.) Buffer

D.) Total float

Correct answer is **A**

*Explanation: Critical Chain is a schedule network analysis technique in which a resource-constrained critical path is created by accounting for resource constraints, adding buffers, etc.*

Reference: PMBOK Guide 5th Edition, page 178

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