AACE Planning & Scheduling Professional (PSP) Certification Practice Exam (Sample)

Study Guide

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Questions

1. What does resource leveling accomplish in project scheduling?

A. Adjusts activity timing to resolve overallocations.

B. Reduces the total time of project execution.

C. Increases the number of resources assigned to tasks.

D. Ensures all tasks start and finish simultaneously.

2. What does MIP 3.4 refer to?

A. Expanded Impact Analysis

B. Retrospective Windows Analysis

C. Future Project Estimation

D. Schedule Compression Techniques

3. What does resource over-allocation refer to?

A. Assigning more resources than are available

B. Underutilizing available resources

C. Redistributing resources across tasks

D. Maintaining resource efficiencies

4. What is the CBS used for?

A. Calculating labor costs

B. Organizing and tracking project costs

C. Mapping project responsibilities

D. Establishing project timelines

5. When is constructability input considered most effective?

A. During project execution phase

B. During early design and planning

C. At the end of project planning

D. During stakeholder analysis

6. What are the primary outputs of schedule maintenance?

A. New project proposals and reports

B. Statused schedule, variance analysis, forecast

C. Stakeholder presentations and updates

D. Summary reports of completed tasks

7. What does it imply if a delay is categorized as excusable?

A. The contractor is liable for all costs

B. The contractor may be eligible for a time extension due to uncontrollable factors

C. The project is automatically extended without penalties

D. The delay often results from subcontractor issues

8. What practice best protects against delay disputes?

A. Frequent team meetings

B. Timely updates, clear narratives, and solid records

C. Establishing a buffer in the schedule

D. Reducing the scope of work

9. What is a planning package?

A. A detailed budget estimation.

B. A placeholder in the WBS for scope not yet detailed.

C. A summary of project objectives.

D. A timeline for project milestones.

10. What is the primary function of a lookahead schedule?

A. To track long-term project milestones

B. To facilitate resource allocation

C. To coordinate near-term work in the field

D. To provide a detailed budget analysis

Answers

1. A
2. B
3. A
4. B
5. B
6. B
7. B
8. B
9. B
10. C

Explanations

1. What does resource leveling accomplish in project scheduling?

A. Adjusts activity timing to resolve overallocations.

B. Reduces the total time of project execution.

C. Increases the number of resources assigned to tasks.

D. Ensures all tasks start and finish simultaneously.

Resource leveling is an essential technique in project scheduling primarily aimed at resolving resource conflicts and ensuring that the available resources are utilized efficiently throughout the project's duration. By adjusting activity timing to resolve overallocations, resource leveling helps to distribute the demand for resources over time, thus preventing situations where resources are assigned to multiple tasks simultaneously. This means that tasks will be rescheduled to allow for the optimal use of available resources, ensuring that no resource is overburdened at any point. Unlike strategies that might focus on compressing project duration or altering the number of resources assigned, resource leveling specifically tackles the challenge of balancing workloads. Its aim is to maintain a sustainable pace for resources without causing delays, while still meeting project deadlines where possible. This leads to a smoother project execution and often enhances the quality of work, as resources are not rushed or overloaded.

2. What does MIP 3.4 refer to?

A. Expanded Impact Analysis

B. Retrospective Windows Analysis

C. Future Project Estimation

D. Schedule Compression Techniques

MIP 3.4 refers to Retrospective Windows Analysis. This concept is crucial in the context of project management and scheduling, especially when evaluating how a project has progressed over time. Retrospective Windows Analysis focuses on examining historical project data, allowing project teams to assess various aspects of project performance, including schedule adherence and resource utilization. The methodology involves analyzing past performance to identify trends and patterns, thereby informing better decision-making for current and future projects. By reviewing retrospective data through defined "windows," project managers can gain insights into the impact of prior scheduling decisions, helping in understanding delays, cost overruns, and ultimately refining planning processes. This kind of analysis is instrumental for continuous improvement, as it helps highlight what worked well and what did not, providing a strong foundation for making improvements in project delivery and performance management. Understanding this aspect of project scheduling is essential for professionals aiming for effective project controls and successful project outcomes.

3. What does resource over-allocation refer to?

A. Assigning more resources than are available

B. Underutilizing available resources

C. Redistributing resources across tasks

D. Maintaining resource efficiencies

Resource over-allocation refers to a situation where the demand for a resource exceeds its available supply. This typically occurs when more tasks are assigned to a specific resource than it can handle effectively within the given timeframe. For instance, if an individual is assigned to work on multiple tasks that collectively require more hours than that person can physically work in a week, they are considered over-allocated. Recognizing over-allocation is important in project management because it can lead to decreased productivity, increased stress on resources, and potential delays in project timelines. Efficient resource management aims to balance workloads to avoid such scenarios, ensuring that resources are utilized according to their availability and capacity. The other choices do not accurately describe resource over-allocation. For example, underutilizing resources suggests that they are not being fully utilized, which is the opposite of over-allocation. Redistributing resources focuses on managing and reallocating resources rather than exceeding their capacity. Maintaining resource efficiencies is about optimizing resource use, which also contrasts with the concept of over-allocation.

4. What is the CBS used for?

A. Calculating labor costs

B. Organizing and tracking project costs

C. Mapping project responsibilities

D. Establishing project timelines

The Cost Breakdown Structure (CBS) is a critical tool used in project management to systematically organize and track project costs. It serves as a hierarchical decomposition of all costs associated with a project, allowing project managers to analyze expenses at various levels of granularity. By employing a CBS, project managers can monitor how funds are allocated and ensure that spending aligns with the project's budget. This organization helps facilitate the tracking of specific cost elements, making it easier to manage financial performance throughout the project lifecycle and to identify areas where cost overruns may occur. The focus of the CBS on financial aspects directly supports effective cost management and aids in financial reporting, which ultimately contributes to better decision-making regarding resource allocation and project financial health. This is crucial for maintaining control over the project budget and achieving financial objectives.

5. When is constructability input considered most effective?

A. During project execution phase

B. During early design and planning

C. At the end of project planning

D. During stakeholder analysis

Constructability input is most effective during the early design and planning phase of a project. At this stage, project teams can influence design and planning decisions, ensuring that the proposed methods, materials, and sequences are feasible given the project context and constraints. Early involvement allows for identifying potential construction challenges before they become critical, reducing costly changes and delays later in the project lifecycle. Engaging constructability considerations at this point enables architects, engineers, and contractors to collaborate, fostering a design that is not only innovative but also practical and aligned with the construction capabilities and resources available. This proactive approach facilitates a smoother transition from design to construction, often leading to improvements in safety, efficiency, and overall project performance. In contrast, considerations raised during project execution may be too late to effectively influence the design, while input at the end of planning can miss earlier opportunities for optimization. Moreover, while stakeholder analysis is crucial for project success, it does not directly address the feasibility of construction execution implications that are best evaluated during the early phases.

6. What are the primary outputs of schedule maintenance?

A. New project proposals and reports

B. Statused schedule, variance analysis, forecast

C. Stakeholder presentations and updates

D. Summary reports of completed tasks

The primary outputs of schedule maintenance focus on the continuous process of keeping the project schedule updated and ensuring that it accurately reflects the current state of the project. This involves the generation of a statused schedule, which reflects the present status of tasks and milestones in relation to the planned schedule. Variance analysis is also critical in schedule maintenance, as it identifies discrepancies between the planned performance and the actual performance, helping project managers understand where deviations occur and addressing them promptly. Additionally, forecasts are essential outputs as they predict future performance and adapt the project schedule based on current progress and trends, enabling proactive decision-making. In contrast, while new project proposals and reports, stakeholder presentations and updates, and summary reports of completed tasks may contribute to project communication and management, they do not directly represent the outputs produced specifically as a result of ongoing schedule maintenance activities. Thus, the focus on a statused schedule, variance analysis, and forecast distinctly aligns with the objectives of monitoring and controlling the project schedule effectively.

7. What does it imply if a delay is categorized as excusable?

A. The contractor is liable for all costs

B. The contractor may be eligible for a time extension due to uncontrollable factors

C. The project is automatically extended without penalties

D. The delay often results from subcontractor issues

Categorizing a delay as excusable implies that the contractor may be eligible for a time extension due to uncontrollable factors. Excusable delays are typically those beyond the control of the contractor, such as adverse weather, acts of God, or changes in law that impact the project's timeline. When such delays occur, the contractor is not held liable for the costs associated with them, as they are not due to the contractor's negligence or failure to perform. In these cases, the contractor often needs to formally request a time extension, demonstrating that the delay was indeed excusable and not caused by their own actions. This allows the project to maintain its integrity by accounting for unforeseen circumstances that may affect scheduling without penalizing the contractor for factors they could not influence.

8. What practice best protects against delay disputes?

A. Frequent team meetings

B. Timely updates, clear narratives, and solid records

C. Establishing a buffer in the schedule

D. Reducing the scope of work

The best practice for protecting against delay disputes is to maintain timely updates, provide clear narratives, and ensure solid records. This approach emphasizes the importance of thorough documentation and communication throughout the project lifecycle. Regularly updating the project schedule not only keeps all stakeholders informed about the current status but also allows for early identification of potential delays. Clear narratives help contextualize the updates, providing a story behind the numbers that can clarify the reasons for any schedule changes. Solid records serve as evidence that can substantiate claims or defenses during disputes, ensuring that there is a comprehensive trail of the project's progression and the decisions made. This combination of thorough communication and documentation creates a robust framework that enhances transparency, minimizes misunderstandings, and effectively mitigates the risks associated with project delays. Other practices like frequent team meetings, establishing a buffer in the schedule, or reducing the scope of work might contribute to project management but do not directly address the necessary documentation and narrative clarity that are critical in resolving disputes related to delays.

9. What is a planning package?

A. A detailed budget estimation.

B. A placeholder in the WBS for scope not yet detailed.

C. A summary of project objectives.

D. A timeline for project milestones.

A planning package is specifically defined as a placeholder in the Work Breakdown Structure (WBS) for scope that has not yet been fully detailed. It's a necessary component in project management that allows teams to manage projects effectively, even when all aspects of the project are not yet defined. By including planning packages in the WBS, project managers can segment parts of the project that require further development and detail later on. This approach helps maintain flexibility and provides a structure for managing how the project scope will evolve over time. It facilitates communication and planning around the broader project while still allowing for adjustments as the project scope is clarified. The presence of planning packages acknowledges that not every aspect of a project can be defined at the initial stages and allows for comprehensive planning that can adapt to future information and decisions. This is essential for maintaining project momentum while ensuring that all aspects are eventually covered in detail.

10. What is the primary function of a lookahead schedule?

A. To track long-term project milestones

B. To facilitate resource allocation

C. To coordinate near-term work in the field

D. To provide a detailed budget analysis

The primary function of a lookahead schedule is to coordinate near-term work in the field. This type of schedule focuses on the upcoming activities and tasks that are to be executed within a short timeframe, typically ranging from a week to a month. By highlighting immediate work, the lookahead schedule allows project teams to identify priorities, address potential conflicts, allocate resources effectively, and ensure that all necessary preparations are in place. This coordination is crucial as it enhances communication and collaboration among team members and stakeholders, thereby increasing the chances of meeting project deadlines and maintaining project flow. It serves as a practical tool for construction managers and teams to optimize workflow, identify potential constraints, and make adjustments before issues occur, facilitating smoother operations on the job site. While tracking long-term project milestones, facilitating resource allocation, and providing detailed budget analysis are all important for overall project management, they do not specifically capture the essence of what lookahead schedules are designed to accomplish. Instead, the lookahead schedule's focus on the near-term work is what makes it an essential tool in planning and scheduling.