

## **CAPM.exam.460q**

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**CAPM**

**Certified Associate in Project Management (CAPM)®**

### **Sections**

1. Volume A
2. Volume B
3. Volume C
4. Volume D
5. Volume E

## Exam A

### QUESTION 1

The ways in which the roles and responsibilities, reporting relationships, and staffing management will be addressed and structured within a project is described in the:

- A. Human resource management plan.
- B. Activity resource requirements.
- C. Personnel assessment tools,
- D. Multi-criteria decision analysis.

**Correct Answer: A**

**Section: Volume A**

**Explanation**

#### **Explanation/Reference:**

Explanation:

##### 9.1.3.1 Human Resource Management Plan

The human resource management plan, a part of the project management plan, provides guidance on how project human resources should be defined, staffed, managed, and eventually released. The human resource management plan and any subsequent revisions are also inputs into the Develop Project Management Plan process.

Process: 9.1 Plan Human Resource Management

Definition: The process of identifying and documenting project roles, responsibilities, required skills, reporting relationships, and creating a staffing management plan.

Key Benefit: The key benefit of this process is that it establishes project roles and responsibilities, project organization charts, and the staffing management plan including the timetable for staff acquisition and release.

Inputs

- 1. Project management plan
- 2. Activity resource requirements
- 3. Enterprise environmental factors
- 4. Organizational process assets

Tools & Techniques

- 1. Organization charts and position descriptions
- 2. Networking
- 3. Organizational theory
- 4. Expert judgment
- 5. Meetings

Outputs

- 1. **Human resource management plan**

### QUESTION 2

The process of identifying and documenting relationships among the project activities is known as:

- A. Control Schedule.
- B. Sequence Activities.
- C. Define Activities.
- D. Develop Schedule.

**Correct Answer: B**

**Section: Volume A**

**Explanation**

**Explanation/Reference:**

Explanation:

**Process: 6.3 Sequence Activities**

**Definition: The process of identifying and documenting relationships among the project activities.**

**Key Benefit:** The key benefit of this process is that it defines the logical sequence of work to obtain the greatest efficiency given all project constraints.

**Inputs**

1. Schedule management plan
2. Activity list
3. Activity attributes
4. Milestone list
5. Project scope statement
6. Enterprise environmental factors
7. Organizational process assets

**Tools & Techniques**

1. Precedence diagramming method (PDM)
2. Dependency determination
3. Leads and lags

**Outputs**

1. Project schedule network diagrams
2. Project documents updates

**QUESTION 3**

Conditions that are not under the control of the project team that influence, direct, or constrain a project are called:

- A. Enterprise environmental factors
- B. Work performance reports
- C. Organizational process assets
- D. Context diagrams

**Correct Answer: A**

**Section: Volume A**

**Explanation**

**Explanation/Reference:**

Explanation:

**2.1.5 Enterprise Environmental Factors**

Enterprise environmental factors refer to conditions, not under the control of the project team, that influence, constrain, or direct the project. Enterprise environmental factors are considered inputs to most planning processes, may enhance or constrain project management options, and may have a positive or negative influence on the outcome.

Enterprise environmental factors vary widely in type or nature. Enterprise environmental factors include, but are not limited to:

- Organizational culture, structure, and governance;
- Geographic distribution of facilities and resources;
- Government or industry standards (e.g., regulatory agency regulations, codes of conduct, product standards, quality standards, and workmanship standards);
- Infrastructure (e.g., existing facilities and capital equipment);
- Existing human resources (e.g., skills, disciplines, and knowledge, such as design, development, legal, contracting, and purchasing);
- Personnel administration (e.g., staffing and retention guidelines, employee performance reviews and training records, reward and overtime policy, and time tracking);
- Company work authorization systems;
- Marketplace conditions;
- Stakeholder risk tolerances;
- Political climate;
- Organization's established communications channels;

- Commercial databases (e.g., standardized cost estimating data, industry risk study information, and risk databases); and
- Project management information system (e.g., an automated tool, such as a scheduling software tool, a configuration management system, and
- Project management information system (e.g., an automated tool, such as a scheduling software tool, a configuration management system, an information collection and distribution system, or web interfaces to other online automated systems).

#### QUESTION 4

The organization's perceived balance between risk taking and risk avoidance is reflected in the risk:

- A. Responses
- B. Appetite
- C. Tolerance
- D. Attitude

**Correct Answer: A**  
**Section: Volume A**  
**Explanation**

#### Explanation/Reference:

Explanation:

### 11 PROJECT RISK MANAGEMENT

[..]

Organizations perceive risk as the effect of uncertainty on projects and organizational objectives. Organizations and stakeholders are willing to accept varying degrees of risk depending on their risk attitude. The risk attitudes of both the organization and the stakeholders may be influenced by a number of factors, which are broadly classified into three themes:

- *Risk appetite*, which is the degree of uncertainty an entity is willing to take on in anticipation of a reward.
- *Risk tolerance*, which is the degree, amount, or volume of risk that an organization or individual will withstand.
- *Risk threshold*, which refers to measures along the level of uncertainty or the level of impact at which a stakeholder may have a specific interest. Below that risk threshold, the organization will accept the risk. Above that risk threshold, the organization will not tolerate the risk.

For example, an organization's risk attitude may include its appetite for uncertainty, its threshold for risk levels that are unacceptable, or its risk tolerance at which point the organization may select a different risk response. Positive and negative risks are commonly referred to as opportunities and threats. The project may be accepted if the risks are within tolerances and are in balance with the rewards that may be gained by taking the risks. Positive risks that offer opportunities within the limits of risk tolerances may be pursued in order to generate enhanced value. For example, adopting an aggressive resource optimization technique is a risk taken in anticipation of a reward for using fewer resources.

#### QUESTION 5

An output of the Manage Stakeholder Engagement process is:

- A. change requests
- B. enterprise environmental factors
- C. the stakeholder management plan
- D. the change log

**Correct Answer: A**  
**Section: Volume A**  
**Explanation**

#### Explanation/Reference:

Explanation:

### 13.3 Manage Stakeholder Engagement

**Definition:** The process of communicating and working with stakeholders to meet their needs/expectations,

address issues as they occur, and foster appropriate stakeholder engagement in project activities throughout the project life cycle.

**Key Benefit:** The key benefit of this process is that it allows the project manager to increase support and minimize resistance from stakeholders, significantly increasing the chances to achieve project success.

### Inputs

1. Stakeholder management plan
2. Communications management plan
3. Change log
4. Organizational process assets

### Tools & Techniques

1. Communication methods
2. Interpersonal skills
3. Management skills

### Outputs

1. Issue log
2. **Change requests**
3. Project management plan updates
4. Project documents updates
5. Organizational process assets updates

### QUESTION 6

Which process numerically analyzes the effect of identified risks on overall project objectives?

- A. Plan Risk Management
- B. Plan Risk Responses
- C. Perform Quantitative Risk Analysis
- D. Perform Qualitative Risk Analysis

**Correct Answer:** C

**Section:** Volume A

**Explanation**

### Explanation/Reference:

Explanation:

**Process: 11.4 Perform Quantitative Risk Analysis**

**Definition:** The process of numerically analyzing the effect of identified risks on overall project objectives.

**Key Benefit:** The key benefit of this process is that it produces quantitative risk information to support decision making in order to reduce project uncertainty.

### Inputs

1. Risk management plan
2. Cost management plan
3. Schedule management plan
4. Risk register
5. Enterprise environmental factors
6. Organizational process assets

### Tools & Techniques

1. Data gathering and representation techniques
2. Quantitative risk analysis and modeling techniques
3. Expert judgment

### Outputs

1. Project documents updates

## QUESTION 7

An input to the Plan Procurement Management process is:

- A. Source selection criteria.
- B. Market research.
- C. A stakeholder register.
- D. A records management system.

**Correct Answer: C**

**Section: Volume A**

**Explanation**

### **Explanation/Reference:**

Explanation:

#### **5.2.1.5 Stakeholder Register**

Described in Section 13.1.3.1. The stakeholder register is used to identify stakeholders who can provide information on the requirements. The stakeholder register also captures major requirements and main expectations stakeholders may have for the project.

#### **13.1.3.1 Stakeholder Register**

The main output of the Identify Stakeholders process is the stakeholder register. This contains all details related to the identified stakeholders including, but not limited to:

- **Identification information.** Name, organizational position, location, role in the project, contact information;
- **Assessment information.** Major requirements, main expectations, potential influence in the project, phase in the life cycle with the most interest; and
- **Stakeholder classification.** Internal/external, supporter/neutral/resistor, etc.

The stakeholder register should be consulted and updated on a regular basis, as stakeholders may change—or new ones identified—throughout the life cycle of the project.

### **Process: 12.1 Plan Procurement Management**

**Definition:** The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers.

**Key Benefit:** The key benefit of this process is that it determines whether to acquire outside support, and if so, what to acquire, how to acquire it, how much is needed, and when to acquire it.

### **Inputs**

1. Project management plan
2. Requirements documentation
3. Risk register
4. Activity resource requirements
5. Project schedule
6. Activity cost estimates
7. **Stakeholder register**
8. Enterprise environmental factors
9. Organizational process assets

### **Tools & Techniques**

1. Make-or-buy analysis
2. Expert judgment
3. Market research
4. Meetings

### **Outputs**

1. Procurement management plan
2. Procurement statement of work
3. Procurement documents
4. Source selection criteria
5. Make-or-buy decisions

6. Change requests
7. Project documents updates

### QUESTION 8

Reserve analysis is a tool and technique used in which process?

- A. Plan Risk Management
- B. Plan Risk Responses
- C. Identify Risks
- D. Control Risks

**Correct Answer:** D  
**Section:** Volume A  
**Explanation**

#### **Explanation/Reference:**

Explanation:

#### **11.6.2.5 Reserve Analysis**

Throughout execution of the project, some risks may occur with positive or negative impacts on budget or schedule contingency reserves. Reserve analysis compares the amount of the contingency reserves remaining to the amount of risk remaining at any time in the project in order to determine if the remaining reserve is adequate.

#### **Process: 11.6 Control Risks**

**Definition:** The process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project.

**Key Benefit:** The key benefit of this process is that it improves efficiency of the risk approach throughout the project life cycle to continuously optimize risk responses.

#### **Inputs**

1. Project management plan
2. Risk register
3. Work performance data
4. Work performance reports

#### **Tools & Techniques**

1. Risk reassessment
2. Risk audits
3. Variance and trend analysis
4. Technical performance measurement
5. **Reserve analysis**
6. Meetings

#### **Outputs**

1. Work performance information
2. Change requests
3. Project management plan updates
4. Project documents updates
5. Organizational process assets updates

#### **6.5.2.6 Reserve Analysis**

Duration estimates may include contingency reserves, sometimes referred to as time reserves or buffers, into the project schedule to account for schedule uncertainty. Contingency reserves are the estimated duration within the schedule baseline, which is allocated for identified risks that are accepted and for which contingent or mitigation responses are developed. Contingency reserves are associated with the “known-unknowns,” which may be estimated to account for this unknown amount of rework.

As more precise information about the project becomes available, the contingency reserve may be used, reduced, or eliminated. Contingency should be clearly identified in schedule documentation.

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Estimates may also be produced for the amount of management reserve of time for the project. Management reserves are a specified amount of the project duration withheld for management control purposes and are reserved for unforeseen work that is within scope of the project. Management reserves are intended to address the “unknown-unknowns” that can affect a project. Management reserve is not included in the schedule baseline, but it is part of the overall project duration requirements. Depending on contract terms, use of management reserves may require a change to the schedule baseline.

#### **QUESTION 9**

Updates to organizational process assets such as procurement files, deliverable acceptances, and lessons learned documentation are typical outputs of which process?

- A. Close Project or Phase
- B. Conduct Procurements
- C. Control Procurements
- D. Close Procurements

**Correct Answer:** D

**Section:** Volume A

**Explanation**

**Explanation/Reference:**

Explanation:

#### **12.4.3.2 Organizational Process Assets Updates**

Elements of the organizational process assets that may be updated include, but are not limited to:

- **Procurement file.** A complete set of indexed contract documentation, including the closed contract, is prepared for inclusion with the final project files.
- **Deliverable acceptance.** Documentation of formal acceptance of seller-provided deliverables may be required to be retained by the organization. The Close Procurement process ensures this documentation requirement is satisfied. Requirements for formal deliverable acceptance and how to address nonconforming deliverables are usually defined in the agreement.
- **Lessons learned documentation.** Lessons learned, what has been experienced, and process improvement recommendations, should be developed for the project file to improve future procurements.

#### **Process: 12.4 Close Procurements**

**Definition:** The process of completing each project procurement.

**Key Benefit:** The key benefit of this process is that it documents agreements and related documentation for future reference.

#### **Inputs**

1. Project management plan
2. Procurement documents

#### **Tools & Techniques**

1. Procurement audits
2. Procurement negotiations
3. Records management system

#### **Outputs**

1. Closed procurements
2. **Organizational process assets updates**

#### **QUESTION 10**

The basis of identification for current or potential problems to support later claims or new procurements is provided by:

- A. A risk urgency assessment.

- B. The scope baseline.
- C. Work performance information.
- D. Procurement audits.

**Correct Answer: C**  
**Section: Volume A**  
**Explanation**

**Explanation/Reference:**

Explanation:

**4.4.1.5 Work Performance Information**

Work performance information is the performance data collected from various controlling processes, analyzed in context, and integrated based on relationships across areas. Thus work performance data has been transformed into work performance information. Data in itself cannot be used in the decision-making process as it has only out-of-context meaning. Work performance information, however, is correlated and contextualized, and provides a sound foundation for project decisions.

Work performance information is circulated through communication processes. Examples of performance information are status of deliverables, implementation status for change requests, and forecasted estimates to complete.

**QUESTION 11**

Which Collect Requirements output links the product requirements to the deliverables that satisfy them?

- A. Requirements documentation
- B. Requirements traceability matrix
- C. Project management plan updates
- D. Project documents updates

**Correct Answer: B**  
**Section: Volume A**  
**Explanation**

**Explanation/Reference:**

Explanation:

**5.2.3.2 Requirements Traceability Matrix**

**The requirements traceability matrix is a grid that links product requirements from their origin to the deliverables that satisfy them.** The implementation of a requirements traceability matrix helps ensure that each requirement adds business value by linking it to the business and project objectives. It provides a means to track requirements throughout the project life cycle, helping to ensure that requirements approved in the requirements documentation are delivered at the end of the project. Finally, it provides a structure for managing changes to the product scope.

Tracing includes, but is not limited to, tracing requirements for the following:

- Business needs, opportunities, goals, and objectives;
- Project objectives;
- Project scope/WBS deliverables;
- Product design;
- Product development;
- Test strategy and test scenarios; and
- High-level requirements to more detailed requirements.

Attributes associated with each requirement can be recorded in the requirements traceability matrix. These attributes help to define key information about the requirement. Typical attributes used in the requirements traceability matrix may include: a unique identifier, a textual description of the requirement, the rationale for inclusion, owner, source, priority, version, current status (such as active, cancelled, deferred, added, approved, assigned, completed), and status date. Additional attributes to ensure that the requirement has met stakeholders' satisfaction may include stability, complexity, and acceptance criteria.

## **Process: 5.2 Collect Requirements**

**Definition:** The process of determining, documenting, and managing stakeholder needs and requirements to meet project objectives.

**Key Benefit:** The key benefit of this process is that it provides the basis for defining and managing the project scope including product scope.

### **Inputs**

1. Scope management plan
2. Requirements management plan
3. Stakeholder management plan
4. Project charter
5. Stakeholder register

### **Tools & Techniques**

1. Interviews
2. Focus groups
3. Facilitated workshops
4. Group creativity techniques
5. Group decision-making techniques
6. Questionnaires and surveys
7. Observations
8. Prototypes
9. Benchmarking
10. Context diagrams
11. Document analysis

### **Outputs**

1. Requirements documentation
2. **Requirements traceability matrix**

## **QUESTION 12**

Units of measure, level of precision, level of accuracy, control thresholds, and rules of performance measurement are examples of items that are established in the:

- A. Cost management plan.
- B. Work performance information.
- C. Quality management plan.
- D. Work breakdown structure.

**Correct Answer: A**

**Section: Volume A**

**Explanation**

**Explanation/Reference:**

## **QUESTION 13**

Which type of dependency is established based on knowledge of best practices within a particular application area or some unusual aspect of the project in which a specific sequence is desired, even though there may be other acceptable sequences?

- A. External
- B. Internal
- C. Mandatory
- D. Discretionary

**Correct Answer: D**

**Section: Volume A**