

CPRE Foundation Level – 10 Free Sample Questions with Answers

Questions

Questions

1) An organization wants to redesign an internal approval procedure that involves people and defined working steps but no dedicated software. Which statement best reflects the CPRE use of the term system?

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

- A) A procedure cannot be considered a system because it is not a technical product
- B) The procedure can be considered a system because stakeholders can have requirements for it
- C) A deliverable becomes a system only after implementation
- D) Only a combination of software and hardware can be considered a system

2) A monitoring system shall store every temperature measurement together with the time at which the measurement was received. According to CPRE, which kind of requirement is this?

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

- A) Project requirement
- B) Quality requirement
- C) Constraint
- D) Functional requirement

3) When a refrigeration unit detects that its temperature exceeds a defined threshold, it shall send an alert to an external monitoring service. Which kind of requirement does this statement represent?

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

- A) Quality requirement
- B) Functional requirement
- C) Constraint
- D) Process requirement

4) A low-risk reporting requirement would take several weeks to specify and validate in exhaustive detail, while its expected contribution to stakeholder needs is minor. Which RE principle most directly suggests reconsidering that level of effort?

Domain: Fundamental Principles of Requirements Engineering

Topic: Value-orientation

- A) Context
- B) Shared understanding
- C) Requirement completeness
- D) Value-orientation

5) One requirement controls a safety-critical operation, while another affects only a rarely used cosmetic preference. How should the value-orientation principle influence the RE effort spent on them?

Domain: Fundamental Principles of Requirements Engineering

Topic: Value-orientation

- A) Apply the same RE effort to every requirement
- B) Minimize documentation effort for every requirement
- C) Invest more RE effort where the expected benefit and risk reduction justify it
- D) Treat all requirements as equally valuable once approved

6) A team gathers requirements only from paying customers and end users. Late in development, it discovers mandatory operational requirements from the service operator that nobody had considered. Which fundamental principle was neglected?

Domain: Fundamental Principles of Requirements Engineering

Topic: Stakeholders

- A) Requirement stability
- B) Stakeholders
- C) Evolution
- D) Problem – Requirement – Solution

7) A consumer product will eventually serve hundreds of thousands of users, but the individual future users are not known during development. How can RE represent this stakeholder role according to the stakeholder principle?

Domain: Fundamental Principles of Requirements Engineering

Topic: Stakeholders

- A) Choose one random person and treat that person's needs as universal
- B) Define an appropriate persona representing the stakeholder group
- C) Assume all members of the group have identical needs without representation
- D) Use only business goals instead of stakeholder needs

8) An outsourced development team repeatedly discovers weeks later that it interpreted requirements differently from the customer. The organization introduces frequent demonstrations and rapid feedback. Which principle is this primarily supporting?

Domain: Fundamental Principles of Requirements Engineering

Topic: Shared understanding

- A) Problem – Requirement – Solution
- B) Shared understanding
- C) Stakeholders
- D) Requirement prioritization

9) A small team has worked with the same domain experts for years and shares extensive knowledge, terminology, and trust, so not every detail is written down. Which statement best reflects the CPRE view of shared understanding?

Domain: Fundamental Principles of Requirements Engineering

Topic: Shared understanding

- A) Shared understanding can be explicit or implicit depending on how common understanding is established
- B) A glossary eliminates the need for all other forms of communication
- C) Documented requirements automatically guarantee shared understanding
- D) Shared understanding is relevant only in plan-driven development

10) A development team in India is struggling with misunderstandings of essential terms in UK business rules due to insufficient shared context. What is the most effective method to resolve this issue?

Domain: Work Products and Documentation Practices

Topic: Documentation

- A) Develop and maintain a shared glossary
- B) Utilize a project management tool for term clarification
- C) Establish a dedicated communication channel for terminology
- D) Use informal communication methods to discuss terms

Answer Key & Explanations

1) B — The procedure can be considered a system because stakeholders can have requirements for it

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

Explanation: Correct: In CPRE, the term system is used broadly for things that stakeholders have requirements for. This can include products, services, devices, procedures, tools, and compositions or components of larger deliverables. A system therefore does not have to be a software application or even contain software.

2) D — Functional requirement

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

Explanation: Correct: Functional requirements concern results or behavior provided by system functions, and this explicitly includes requirements concerning data. Storing the recorded temperature together with its timestamp specifies required handling of data by the system. The fact that the statement focuses on data does not prevent it from being a functional requirement.

3) B — Functional requirement

Domain: Introduction and Overview of Requirements Engineering

Topic: Requirements Engineering: What

Explanation: Correct: Functional requirements also include requirements concerning a system's interaction with its environment. Sending an alert to an external monitoring service when a defined event occurs specifies required system behavior involving an environmental interface. It is therefore a functional requirement rather than a quality requirement or a constraint.

4) D — Value-orientation

Domain: Fundamental Principles of Requirements Engineering

Topic: Value-orientation

Explanation: Correct: Value-orientation means that requirements are a means to an end and should justify the effort spent on them. The value of a requirement is its benefit minus the cost of eliciting, documenting, validating, and managing it. Spending substantial effort on a low-benefit requirement may therefore reduce rather than increase its value.

5) C — Invest more RE effort where the expected benefit and risk reduction justify it

Domain: Fundamental Principles of Requirements Engineering

Topic: Value-orientation

Explanation: Correct: Value-orientation considers both the benefit of a requirement and the cost of Requirements Engineering work performed for it. A requirement that strongly reduces the risk of failure or costly rework can justify greater RE effort than a requirement with little impact.

6) B — Stakeholders

Domain: Fundamental Principles of Requirements Engineering

Topic: Stakeholders

Explanation: Correct: The stakeholder principle requires RE to consider all relevant stakeholder roles, not only users and customers. Regulators, operators, security personnel, clients, developers, and other affected or influential parties may provide critical requirements.

7) B — Define an appropriate persona representing the stakeholder group

Domain: Fundamental Principles of Requirements Engineering

Topic: Stakeholders

Explanation: Correct: When a stakeholder role contains too many individuals or the individuals are not yet known, CPRE allows personas to serve as fictitious archetypical representatives of people with similar characteristics. A persona supports consideration of that stakeholder role but does not eliminate the need to understand relevant stakeholder needs.

8) B — Shared understanding

Domain: Fundamental Principles of Requirements Engineering

Topic: Shared understanding

Explanation: Correct: Shared understanding is necessary among stakeholders, Requirements Engineers, and developers. Short feedback loops are particularly important because they reduce the impact of misunderstandings by revealing divergent interpretations sooner.

9) A — Shared understanding can be explicit or implicit depending on how common understanding is established

Domain: Fundamental Principles of Requirements Engineering

Topic: Shared understanding

Explanation: Correct: Shared understanding may be explicit or implicit. Explicit shared understanding is based on carefully elicited, documented, and agreed requirements, while implicit shared understanding relies on shared knowledge of needs, visions, context, culture, and similar factors. Strong previous collaboration and mutual trust can enable implicit shared understanding.

10) A — Develop and maintain a shared glossary

Domain: Work Products and Documentation Practices

Topic: Documentation

Explanation: To enhance explicit shared understanding among distributed teams, it is crucial to develop and maintain a shared glossary. Simply increasing the number of meetings may not adequately address ambiguities, and accepting delays as a norm overlooks the importance of proactive communication. Relying on implicit shared knowledge can lead to misinterpretations across different cultural contexts.