

***Project Management for Engineering Business and
Technology 6th edition Nicholas Test Bank***

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Chapter 2 – Test Questions

Multiple Choice with Single Answers

Some notable features of a system are that:

- (a) it is an assembly of parts (elements)
- (b) the assembly of parts is affected by being in the system
- (c) the assembly of parts is of particular interest
- (d) the assembly of parts does something or has a goal
- (e) all of the above

Answer: e

The characteristics, or distinguishing features of a system are its

- (a) elements
- (b) attributes
- (c) subsystems

Answer: b

Reference: 2.2 Systems Concepts and Principles

The form of relationships or linkages among the elements of a system is referred to as

- (a) structure
- (b) constraints
- (c) boundaries
- (d) subsystems

Answer: a

Reference: 2.2 Systems Concepts and Principles

A role of feedback is to:

- (a) keep the subsystems within the system
- (b) alter the environment to conform to system objectives
- (c) signal the system that it is deviating from its objectives
- (d) set the objectives of the system

Answer: c

Reference: 2.2 Systems Concepts and Principles

Most systems, including projects, can be conceptualized as (circle one):

- (a) hierarchical systems
- (b) natural systems

- (c) network systems
- (d) all of the above
- (e) both (a) and (c)

Answer: e

Reference: 2.2 Systems Concepts and Principles

Managing a system to achieve effective, coordinated functioning of its elements working toward system objectives is called (circle one):

- (a) systems definition
- (b) systems integration
- (c) systems development
- (d) systems forecasting

Answer: b

Reference: 2.2 Systems Concepts and Principles

In the systems approach, the problem solver keeps in mind:

- (a) the optimal efficiency of the parts of the system
- (b) the management and resources of the system
- (c) the objectives and environment of the system
- (d) all of the above
- (e) b and c only

Answer: e

Reference: 2.3 Systems Approach

The three main “dimensions” of systems engineering are:

- (a) multidisciplinary, modularization, life cycle
- (b) life cycle, models, stakeholders
- (c) systems, subsystems, and components

Answer: a

Reference: 2.4 Systems Engineering

Multiple Choice with Multiple Answers

Which of the following are true (circle all that apply):

- (f) the smallest part of a system is an element

- (g) a subsystem can be viewed as an element of a system
- (h) it is usually easy to define the boundary of a complex system
- (i) all living things are open systems

Answer: a, b, d

Reference: 2.1 Systems and System Thinking

The function of project managers is to (circle all that apply):

- (a) mediate between the higher (institutional) levels and lower (technical) levels in the project
- (b) integrate and coordinate the tasks of the technical level in the project
- (c) conceive the long-term goals of the organization
- (d) provide detailed guidance and control over all work at the technical level

Answer: a, b

Reference: 2.1 Systems and System Thinking

The systems approach is a framework for (circle all that apply):

- (a) looking at problems
- (b) identifying and focusing exclusively on the parts of a system
- (c) isolating the parts of the system from the whole system
- (d) finding solutions to problems

Answer: a, d

Reference: 2.3 Systems Approach

Which of the following best reflect the systems approach (circle all that apply):

- (a) breakeven analysis
- (b) statistical quality control techniques
- (c) project management
- (d) systems engineering
- (e) time and motion study; methods analysis

Answer: c, d

Reference: 2.3 Systems Approach

Choose from among the following 4 terms to correctly fill in the 3 blanks in the statement:

- (a) feedback
- (b) inputs
- (c) processes
- (d) outputs

Statement: Human-made systems convert_____ into _____using _____.

Answer: inputs, outputs, processes

True or False?

Statement: In “systems thinking,” things are broken down into parts, and the parts are analyzed separately.

Answer: FALSE

Reference: 2.1 Systems and System Thinking

Statement: Systems thinking means being able to perceive the “system” in a situation.

Answer: TRUE

Reference: 2.1 Systems and System Thinking

Statement: What comprises the “system” in a problem or situation always remains the same, regardless who defines the system.

Answer: FALSE

Reference: 2.1 Systems and System Thinking

Statement: The objectives of a human-made system can be broken down into requirements, which are the specific criteria to which the system must conform.

Answer: TRUE

Reference: 2.2 Systems Concepts and Principles

Statement: The environment of a system is something that influences the system but that the system designer cannot control.

Answer: FALSE

Reference: 2.2 Systems Concepts and Principles

Statement: An open system is viewed as self-contained and independent of the environment.

Answer: FALSE

Reference: 2.2 Systems Concepts and Principles

Statement: Project organizations are natural systems.

Answer: TRUE

Reference: 2.2 Systems Concepts and Principles

Statement: Human organizations are best managed as if they were closed systems.

Answer: FALSE

Reference: 2.2 Systems Concepts and Principles

Statement: The “environmental fallacy” means that most problems can be viewed as independent of the environment because solutions tend not to influence the environment.

Answer: FALSE

Reference: 2.3 Systems Approach

Statement: The systems approach says: “Let's stand back and look at this situation from different angles.”

Answer: TRUE

Reference: 2.3 Systems Approach

Statement: The role of management in systems is to plan and control the systems so that overall system objectives are achieved.

Answer: TRUE

Reference: 2.3 Systems Approach

Statement: Systems engineering is a way of bringing a whole system into being and accounting for its full life cycle during early design and development.

Answer: TRUE

Reference: 2.4 Systems Engineering

Statement: The V-model illustrates the cycles of analysis, synthesis, and evaluation within the systems engineering process.

Answer: TRUE

Reference: 2.4 Systems Engineering

Statement: System architecture refers to the way that functions and components are “modularized” or clustered into groups within a system.

Answer: TRUE

Reference: 2.4 Systems Engineering

Statement: In systems engineering, the customer and contractor work interactively to define the problem, needs, and requirements.

Answer: TRUE

Reference: 2.4 Systems Engineering