

Systems, Roles, and Development Methodologies, 8e (Kendall/Kendall)
Chapter 2 Understanding and Modeling Organizational Systems

2.1 Multiple Choice

1) Which of these is most closely associated with system control?

- A) boundary
- B) environment
- C) feedback
- D) interface

Answer: C

Diff: 1 Page Ref: 25

2) The elements that make up an organizational system are called _____.

- A) entities
- B) events
- C) factors
- D) relationships

Answer: A

Diff: 1 Page Ref: 30

3) Which of the following symbols is not used on the context level data flow diagram?

- A) rectangle with rounded corners
- B) triangle
- C) arrow
- D) shaded corner square

Answer: B

Diff: 1 Page Ref: 29

4) The context level data flow diagram depicts:

- A) the boundaries of a system.
- B) detailed processes that transform the incoming data to information.
- C) the system entities and how they are related.
- D) computer programs and their files.

Answer: A

Diff: 2 Page Ref: 29

5) An external entity may be:

- A) a person.
- B) another department.
- C) another computer system.
- D) all of the above.

Answer: D

Diff: 2 Page Ref: 33

6) Which of these is used to depict a relationship in an entity relationship diagram?

- A) triangle
- B) square
- C) crow's foot line
- D) rectangle

Answer: C

Diff: 2 Page Ref: 31

7) In an organization with many employees and many cubicles, with each employee having a unique phone extension is said to be a _____ relationship.

- A) 1:1
- B) 1:M
- C) M:1
- D) M:N

Answer: A

Diff: 2 Page Ref: 31

8) A crow's foot notation indicates:

- A) none of the other entity.
- B) one of the other entity.
- C) an attributive entity.
- D) many of the other entity.

Answer: D

Diff: 1 Page Ref: 31

9) An entity that describes attributes, such as repeating groups is called:

- A) a fundamental entity.
- B) an associative entity.
- C) an attributive entity.
- D) an external entity.

Answer: C

Diff: 1 Page Ref: 32

10) An entity that joins two other entities is called:

- A) a fundamental entity.
- B) an associative entity.
- C) an attributive entity.
- D) an linking entity.

Answer: B

Diff: 1 Page Ref: 32

11) A many-to-many relationship is replaced with a(n) _____ to form two one-to-many relationships.

- A) a fundamental entity.
- B) an associative entity.
- C) an attributive entity.
- D) a bipolar entity.

Answer: B

Diff: 3 Page Ref: 33

12) Which level of management makes decisions using predetermined rules that have predictable outcomes?

- A) operations
- B) middle
- C) strategic
- D) None are interested in detailed information.

Answer: A

Diff: 2 Page Ref: 44

13) Which level of management is most dependent on external information?

- A) operations
- B) middle
- C) strategic
- D) None of these are dependent on external information.

Answer: C

Diff: 1 Page Ref: 45

14) Which view of organizations concentrates on myths, metaphors, humor, and ceremonies?

- A) culture
- B) human relationships
- C) leadership style
- D) technology

Answer: A

Diff: 1 Page Ref: 45

15) Anything external to an organization's boundaries is considered to be:

- A) of little importance.
- B) an environment.
- C) an enterprise resource system.
- D) an associative entity.

Answer: B

Diff: 3 Page Ref: 25

16) The free flow of information within a system is called:

- A) open source information.
- B) a virtual organization.
- C) openness.
- D) enterprise wide resource availability.

Answer: C

Diff: 2 Page Ref: 26

17) A(n) _____ uses computer networks and communications technology to bring people together to work on projects

- A) virtual enterprise
- B) open system
- C) enterprise system
- D) official subculture

Answer: A

Diff: 3 Page Ref: 26

18) An integrated organizational information system is called a(n):

- A) virtual organization.
- B) open system.
- C) interrelated external entity.
- D) an enterprise resource planning system.

Answer: D

Diff: 1 Page Ref: 32

19) An enterprise resource planning system:

- A) is purchased rather than developed.
- B) links team members at remote distances.
- C) uses project management software to develop program coding schedules.
- D) involves the use of isolated systems that do not interact.

Answer: A

Diff: 2 Page Ref: 28

20) The symbol used to represent a process on a context level data flow diagram is:

- A) a diamond inside a rectangle.
- B) a circle.
- C) an oval inside a rectangle.
- D) a rectangle with rounded corners.

Answer: D

Diff: 3 Page Ref: 29

21) Processes on a data flow diagram:

- A) transform incoming data into outgoing information.
- B) represent the system boundaries.
- C) represent the work that a specific user performs.
- D) change the nature of the relationships on an entity-relationship diagram.

Answer: A

Diff: 2 Page Ref: 19

22) Another name for an associative entity is:

- A) an attributive entity.
- B) an external entity.
- C) a co-variant entity.
- D) a gerund.

Answer: D

Diff: 1 Page Ref: 32

23) A zero on a relationship line indicates:

- A) that the relationship line is undefined.
- B) the absence of any well-defined entities.
- C) that none is possible for the next relationship.
- D) that the relationship should be used to create an associative entity.

Answer: C

Diff: 2 Page Ref: 31

24) Attributes that are underlined on an entity-relationship diagram:

- A) are the names of external entities.
- B) can be searched for.
- C) represent virtual organizational components.
- D) are used to create attributive entities.

Answer: B

Diff: 2 Page Ref: 34

25) The management group that has a high need for historical data along with information that allows prediction of future events is:

- A) operations management.
- B) middle management.
- C) strategic management.
- D) virtual management.

Answer: B

Diff: 2 Page Ref: 45

2.2 True/False

1) Systems and subsystems are interrelated and interdependent.

Answer: TRUE

Diff: 1 Page Ref: 24

2) Feedback is a form of system control.

Answer: TRUE

Diff: 1 Page Ref: 25

3) Anything which affects the functioning of an organization is considered to be an environment.

Answer: FALSE

Diff: 2 Page Ref: 25

4) An open system allows free passage of resources (people, information, materials) through its boundaries

Answer: TRUE

Diff: 1 Page Ref: 46

5) A context level data flow diagram includes many detailed processes representing the computer programs within the system.

Answer: FALSE

Diff: 2 Page Ref: 39

6) In an entity relationship diagram, rectangles represent entities, and ovals represent relationships.

Answer: FALSE

Diff: 2 Page Ref: 30

7) The elements that make up an organizational system are referred to as entities.

Answer: TRUE

Diff: 1 Page Ref: 30

8) A crow's foot on each side of a relationship indicates a one-to-one relationship.

Answer: FALSE

Diff: 1 Page Ref: 31

9) An associative entity joins two entities.

Answer: TRUE

Diff: 2 Page Ref: 32

10) Middle managers make decisions using predetermined rules that have predictable outcomes when implemented correctly.

Answer: FALSE

Diff: 1 Page Ref: 44

11) Strategic managers work in a highly uncertain decision making environment.

Answer: TRUE

Diff: 1 Page Ref: 45

12) Operations managers most often make one-time decisions but the decisions made by strategic managers tend to be repetitive.

Answer: FALSE

Diff: 2 Page Ref: 44

13) Middle managers are highly dependent on external information.

Answer: FALSE

Diff: 2 Page Ref: 44

14) Strategic planners tend to use information that is more current than information used by middle managers.

Answer: FALSE

Diff: 2 Page Ref: 45

15) Often, considering organizational subcultures is more useful than is considering organizational culture.

Answer: TRUE

Diff: 1 Page Ref: 45

16) Understanding organizational subcultures may help analysts overcome resistance to change.

Answer: TRUE

Diff: 2 Page Ref: 46

17) Virtual enterprises use computer networks and communications technology to bring people together on a project.

Answer: TRUE

Diff: 1 Page Ref: 26

18) One drawback of working on a virtual team is that there is no easy way for members to share project results.

Answer: FALSE

Diff: 1 Page Ref: 26

19) Enterprise resource planning systems are software that help the flow of information between the functional areas in an organization.

Answer: TRUE

Diff: 1 Page Ref: 28

20) Implementing an enterprise resource system is easy because it is easy to analyze a system currently in use.

Answer: FALSE

Diff: 1 Page Ref: 28

21) Another name for an attributive entity is a gerund.

Answer: FALSE

Diff: 2 Page Ref: 32

22) A many-to-many relationship may be implemented by using an attributive entity on one end.

Answer: FALSE

Diff: 2 Page Ref: 34

23) A zero on one end of a relationship line indicates that there may be none of the entity that the line is connected to.

Answer: TRUE

Diff: 2 Page Ref: 34

24) A primary use case describes the standard flow of events in the system.

Answer: TRUE

Diff: 1 Page Ref: 38

25) Use cases allow people to tell stories.

Answer: TRUE

Diff: 1 Page Ref: 43

2.3 Fill-in-the-Blank

1) All systems are composed of interrelated _____.

Answer: subsystems

Diff: 1 Page Ref: 24

2) _____ change or transform inputs into outputs.

Answer: Processes

Diff: 1 Page Ref: 24

3) All systems and subsystems are interrelated and _____, which indicates that when any element of a system is changed or eliminated, other system elements are also affected.

Answer: interdependent

Diff: 1 Page Ref: 25

4) System outputs are used as _____ to compare performance with goals.

Answer: feedback

Diff: 2 Page Ref: 25

5) A(n) _____ system is a system with a relatively free flow of information within the organization.

Answer: open

Diff: 1 Page Ref: 46

6) A _____ defines the boundaries of the system.

Answer: context level data flow diagram

Diff: 2 Page Ref: 34

7) The elements that make up an organizational system can be referred to as _____ .

Answer: Entities

Diff: 2 Page Ref: 30

8) A(n) _____ is used to help model the database or files.

Answer: entity-relationship diagram

Diff: 1 Page Ref: 34

9) A(n) _____ on one end of a relationship indicates that none of the entity are a possibility.

Answer: circle or zero

Diff: 1 Page Ref: 31

10) A(n) _____ joins two fundamental entities.

Answer: associative entity

Diff: 1 Page Ref: 32

11) The level of management concerned with making decisions using predetermined rules which have predictable outcomes is the _____ manager.

Answer: operations

Diff: 1 Page Ref: 44

12) _____ coexist with "official" organizational cultures.

Answer: Subcultures

Diff: 1 Page Ref: 45

13) A(n) _____ uses computer networks and communications technology to bring people together to work on projects.

Answer: virtual enterprise

Diff: 2 Page Ref: 26

14) A(n) _____ system describes an integrated organizational information system.

Answer: enterprise resource planning

Diff: 1 Page Ref: 28

15) A use case diagram contains two symbols, the _____ and a(n) _____.

Answer: use case; actor

Diff: 3 Page Ref: 36

16) The _____ relationship contains a behavior that is common to more than one use case.

Answer: includes

Diff: 3 Page Ref: 37

17) The _____ relationships handles exceptions to the basic use case.

Answer: extends

Diff: 3 Page Ref: 37

18) _____ are the state of the system before the use case may be performed.

Answer: Preconditions

Diff: 3 Page Ref: 41

19) _____ show the state of the system after the use case has finished.

Answer: Postconditions

Diff: 3 Page Ref: 41

20) _____ forms the second, or intermediate, tier of the three-tiered management system.

Answer: Middle Management

Diff: 2 Page Ref: 44

21) A(n) _____ can only exist if it is connected to at least two other entities.

Answer: associative entity

Diff: 3 Page Ref: 32

22) A _____ describes *what* a system does without describing *how* the system does it

Answer: use case model

Diff: 2 Page Ref: 36

23) The _____ area shows why this use case is important and necessary for the business area to be successful

Answer: Requirements Met

Diff: 3 Page Ref: 43

24) _____ is a rough assessment of whether there may be problems or difficulties developing the use case.

Answer: Risk

Diff: 3 Page Ref: 43

25) _____ are highly dependent on information from external sources that supply news of market trends and the strategies of competing corporations.

Answer: Strategic managers

Diff: 2 Page Ref: 43

2.4 Short Answer

1) Describe the elements of an E-R diagram depicting the relationship between a person and a tee-shirt. This description should show the following relationship: Each person can have many tee-shirts, but each shirt can only be owned by a single person.

Answer: Students should describe two entities, connected with a one to many relationship.

Diff: 2 Page Ref: 31

2) Give an example of the type of decision that would be made by an Operational Manager?

Answer: Students should provide an example that is consistent with the idea that Operational Managers use predetermined rules that usually have predictable outcomes, e.g dismissing an employee for reporting to work late three times in a week.

Diff: 2 Page Ref: 44

3) What are the three parts of a use case scenario that are always described?

Answer: A use case always describes three things: an actor that initiates an event; the event that triggers a use case; and the use case that performs the actions triggered by the event.

Diff: 1 Page Ref: 36

4) List the three broad, horizontal levels of management in organizations.

Answer: 1. Operational Management

2. Middle Management

3. Strategic Management

Diff: 2 Page Ref: 44

5) Define openness in an organizational environment.

Answer: Openness in an organizational environment allows for free passage of resources (people, information, materials) through its boundaries

Diff: 2 Page Ref: 46