

Chapter 2 The Nature of Knowledge

True-False Questions

1. Data and information are essentially the same and should be treated equally.
Answer: False **Difficulty: Medium**
2. Data is devoid of context.
Answer: True **Difficulty: Easy**
3. Information is any subset of data.
Answer: False **Difficulty: Easy**
4. Knowledge is justified beliefs about relationships among concepts relevant to a specific area.
Answer: True **Difficulty: Medium**
5. Knowledge refers to information that facilitates action.
Answer: True **Difficulty: Medium**
6. Knowledge helps produce information from data.
Answer: True **Difficulty: Medium**
7. In the subjective view, knowledge is independent of social practices.
Answer: False **Difficulty: Easy**
8. Knowledge may be viewed objectively as enabling access and utilization of information.
Answer: True **Difficulty: Medium**
9. Three different perspectives of knowledge exist: the subjective, the normative, and the objective.
Answer: False **Difficulty: Easy**
10. The various perspectives of knowledge are consistent in their focus, but differ in their views of knowledge as beliefs about relationships between items of information.
Answer: False **Difficulty: Medium**
11. Declarative knowledge focuses on beliefs about relationships among variables.

Answer: True

Difficulty: Easy

12. Procedural knowledge focuses on beliefs relating sequences of actions to outcomes.

Answer: True

Difficulty: Easy

13. Tacit knowledge is any knowledge that can be expressed into human words.

Answer: False

Difficulty: Hard

14. Explicit knowledge may be converted into tacit knowledge.

Answer: True

Difficulty: Medium

15. Specific knowledge is possessed by a large number of individuals.

Answer: False

Difficulty: Easy

16. Associational expertise is learned by repeatedly performing specific tasks.

Answer: False

Difficulty: Medium

17. Complex knowledge draws on multiple distinct areas of expertise.

Answer: True

Difficulty: Easy

18. Codifiability reflects the extent to which knowledge can be taught to another individual.

Answer: False

Difficulty: Medium

19. Knowledge may be stored within organizational entities.

Answer: True

Difficulty: Easy

20. All knowledge is stored tacitly in people's heads.

Answer: False

Difficulty: Medium

Multiple Choice Questions

21. The number of times a telephone number is called per day should be considered as _____.
- a. data
 - b. information
 - c. knowledge
 - d. business expenses
 - e. cannot be determined from the information given

Answer: a

Difficulty: Easy

22. Given the GDP and population of a country, the means for converting this into the debt owed by each individual of the country (in behalf of the country) should be considered as _____ for a politician.
- a. data
 - b. information
 - c. knowledge
 - d. an algorithm
 - e. cannot be determined from the information given

Answer: c

Difficulty: Medium

23. Knowledge in an area is a set of justified beliefs about relationships among concepts _____.
- a. that are not well known to the general populace
 - b. relevant to that particular area
 - c. that appear unrelated
 - d. which are obvious
 - e. in the head of an employee

Answer: b

Difficulty: Medium

24. Which of the following is true about knowledge?
- a. Knowledge helps produce information from data.
 - b. Knowledge produces more valuable information from less valuable information.
 - c. Knowledge helps facilitate action.
 - d. All of the above.
 - e. None of the above.

Answer: d

Difficulty: Medium

25. Knowing the expected value of a 6-sided die roll (3.5) is an example of _____.
- a. data
 - b. information
 - c. knowledge
 - d. common sense
 - e. gambler's fallacy

Answer: b

Difficulty: Medium

26. The subjective view of knowledge represents knowledge as _____.
a. relevance
b. access to information
c. an object
d. a capability
e. a state of mind or a practice

Answer: e

Difficulty: Easy

27. Which of the following is not an objective view of knowledge?
a. Knowledge as objects.
b. Knowledge as access to information.
c. Knowledge as capability.
d. Knowledge as practice.
e. None of the above.

Answer: d

Difficulty: Medium

28. Which of the following is not an objective view of knowledge?
a. Knowledge as capability.
b. Knowledge as access to information.
c. Knowledge as practice
d. Knowledge as objects.
e. None of the above.

Answer: c

Difficulty: Easy

29. The procedure for filing for family emergency medical leave in the employee handbook of an organization is an example of what types of knowledge?
a. Tacit and procedural.
b. Explicit and specific.
c. Explicit and declarative.
d. Tacit and specific.
e. Explicit and procedural.

Answer: e

Difficulty: Medium

30. Which of the following knowledge classifications may be characterized as “know what” and “know how”?
a. Declarative and procedural knowledge.
b. Tacit and explicit knowledge.
c. General and specific knowledge.
d. Objective and subjective knowledge.
e. Technical and contextual knowledge.

Answer: a

Difficulty: Medium

31. Which of the following descriptions best defines tacit knowledge, according to the text?
a. Personal knowledge based on individual experience that may be difficult to share.
b. Knowledge possessed by a large number of individuals.

- c. Knowledge of particular circumstances of time and place in which work is to be performed.
- d. Knowledge that focuses on beliefs about relationships among variables.
- e. The set of collective beliefs reflected in an organization's activities.

Answer: a

Difficulty: Easy

32. How many types of knowledge exist, given the classifications of: tacit, explicit, general, technically specific, contextually specific, declarative, and procedural?
- a. 2
 - b. 3
 - c. 7
 - d. 8
 - e. 12

Answer: e

Difficulty: Medium

33. Which of the following statements describes associational expertise?
- a. Knowledge held as collective beliefs and actions of a group.
 - b. A skill learned through extensive practice.
 - c. Knowledge of relationships between observed events and causes.
 - d. Creative ingenuity based on theoretical knowledge of the domain.
 - e. Knowledge focused on multiple distinct areas of expertise.

Answer: c

Difficulty: Medium

34. Automatic processes that do not require conscious thought for action are _____.
- a. associational expertise
 - b. black-box expertise
 - c. deep expertise
 - d. motor skills expertise
 - e. tacit expertise

Answer: d

Difficulty: Easy

35. Which types of knowledge are represented by an HR manager's knowledge of factors to consider in motivating an employee to participate in the company's new knowledge sharing business culture?
- a. Explicit and declarative.
 - b. Tacit and contextually specific.
 - c. Procedural and technically specific.
 - d. General and procedural.
 - e. Explicit and procedural.

Answer: b

Difficulty: Medium

36. Which types of knowledge are represented by the help facility in a word-processor that informs a user how to create a table of contents for a document?
- a. Procedural and technically specific.
 - b. Declarative and technically specific..
 - c. Procedural and general.

- d. Declarative and contextually specific.
- e. Declarative and general.

Answer: a

Difficulty: Medium

37. What is the explicitness of a piece of knowledge?
- a. The number of domain areas to which the knowledge refers.
 - b. The extent to which knowledge exists in an explicit form.
 - c. The level of action enabled by the knowledge.
 - d. The extent to which the knowledge can be taught to others.
 - e. The level to which knowledge can be acquired by individuals with specific knowledge.

Answer: b

Difficulty: Medium

38. Which of the following are people knowledge reservoirs?
- a. Individuals and their technology.
 - b. Individuals and knowledge repositories.
 - c. Individuals and groups.
 - d. Individuals and their practices.
 - e. Individuals and organizations.

Answer: c

Difficulty: Medium

39. A spreadsheet of weekly orders for specific products of an organization with trend lines added is an example of what type of knowledge reservoir?
- a. Knowledge repositories.
 - b. Organizations.
 - c. Organizational networks.
 - d. Technologies.
 - e. Practices.

Answer: d

Difficulty: Medium

40. The collective knowledge of a group is _____, greater than the sum of each group member's individual knowledge?
- a. a community of practice
 - b. virtual
 - c. tactical
 - d. strategic
 - e. synergistic

Answer: e

Difficulty: Medium

Essay Questions

41. *Describe the two ways presented in the text for distinguishing knowledge from information and data.*

The simpler view merely distinguishes between the value of the corresponding information, where data has little value, information has more value, and knowledge has the greatest value. In this view, knowledge is at the top of an information hierarchy with information value being the vertical axis.

The second view states that knowledge is what enables us to produce more valuable information from less valuable information, with the importance being on the transformation process. It is more about relationships between pieces of information.

Difficulty: Easy

42. *Give examples of data, information, and knowledge from the restaurant (burger) example in the text from the perspective of the restaurant manager.*

Data: the number of burgers/rolls/other ordered, number of burgers/rolls/other served (also true for all other menu items including shakes and fries), server and chef salaries, burgers/rolls/other in stock, sales price of an order, cost of a burger/roll/other.

Information: daily sales numbers (dollars, quantity, or percent of daily sales) for each item, the daily reduction in inventory for each item, total number of customers for the day, percentage of customers ordering burgers/shakes/other, reorder quantities for restaurant food items, the average time spent by a server on each customer.

Knowledge: The trend of customer numbers indicating future customers and ordering patterns, the relationship between projected burger sales and bread inventory (or any other menu item and corresponding material, e.g., shakes and milk), the relationship between projected customers and average server time and desired server times to determine staffing needs.

Difficulty: Medium

43. *Briefly describe the various perspectives on knowledge.*

Knowledge may be examined either subjectively or objectively.

The subjective view ties knowledge to an individual's experience in social interactions with others and is classified as either a state of mind or as a practice.

The objective view claims that knowledge exists in *a priori* categories or concepts independent of any individual. This *a priori* knowledge may exist as an object, a capability, or simply as access to information.

Difficulty: Medium

44. *List and briefly define the three types of objective knowledge.*

1. Knowledge as an object, where an object is something that can be stored, transferred, and manipulated.
2. Knowledge as access to information. Enable access and utilization of information.
3. Knowledge as capability. Emphasis on knowledge as a strategic capability, how

knowledge may be applied to influence action.

Difficulty: Easy

45. *What are the three classifications of knowledge highlighted in Chapter 2?*

Procedural or declarative, indicating that knowledge may be classified as either data-oriented or task-oriented. Tacit or explicit, indicating knowledge that is held in the heads of individuals or groups or alternately encoded in some other storage medium. General or specific, indicating the breadth of ownership of the knowledge with general knowledge held by many and specific knowledge held by few.

Difficulty: Medium

46. *How can explicit knowledge be transferred to tacit knowledge?*

Explicit knowledge is knowledge that is articulated (and frequently encoded) and may be easily transferred to another individual or group. When an individual acquires knowledge from an explicit form (through reading/hearing/feeling/observing), then the knowledge must be remembered to become tacit and as such is transformed to conform to or modify the individual's existing belief system. An example would be when an employee looks into a manual to determine how to install a new piece of hardware in his/her computer. The manual is explicit procedural information. After performing a few installs, the employee will learn the specified procedures and possibly some improvements to the documented procedures, thus transforming the explicit knowledge into tacit knowledge.

Difficulty: Medium/Hard

47. *List and define the three types of expertise discussed in the text.*

Associational expertise comes from years of experience and recognizing patterns in data. An example would be a mechanic who can diagnose the potential problems in a car just from listening to the sounds made by the car.

Motor skill expertise is predominantly physical instead of cognitive and results from a very large number of practice sessions to develop a particular physical skill such as shooting a basketball.

Theoretical or deep expertise is knowledge of a particular topic far beyond the average individual. The ability to go beyond superficial understanding and create novel solutions to problems based on the theoretical foundations of the domain.

Difficulty: Hard

48. *What are the three general knowledge reservoirs and two specific reservoirs for each of the three general reservoirs?*

1. People reservoirs—individuals and groups
2. Artifact reservoirs—practices, technologies, or repositories
3. Organizational entity reservoirs—organizations, organizational units, or interorganizational networks

Difficulty: Easy

49. *Discuss why a group may be viewed as a knowledge resource or reservoir.*

Groups commonly develop behavioral norms for the optimal functioning of the group which is dependant on all members of the group and not any individual. Also groups form beliefs and practices to optimize their goals that are the collaborative accumulation of individually held beliefs and are not commonly held by an individual prior to being established in the group.

Difficulty: Medium

50. *What types of knowledge are held in an organizational unit reservoir and how is organizational unit knowledge utilized?*

All 12 types of knowledge combinations in Table 2.1 may be found within organizational units; however, the more commonly identified knowledge types are contextually specific (i.e., related to the purpose of the unit) and both declarative and procedural knowledge again relevant to the unit's goals and means for accomplishing those goals. Unit procedures (SOP) as well as lessons learned may be recorded explicitly, but the unit acting as a group will also have tacit knowledge about beliefs and acceptable practices among the unit group members. Knowledge is stored partly in the relationships among the members of the unit. Newcomers to the unit will benefit by being able to rapidly learn/acquire unit knowledge from the current members.

Difficulty: Hard