Principles of Operations Management 11th edition Heizer Test Bank

SKU: 9780135226742-TEST-BANK

Test Bank (Download only) for Operations Management & Principles of Operations Management: Sustainability and Supply Chain Management

Revised by Jianli Hu

Operations Management

Thirteenth Edition

Principles of Operations Management

Eleventh Edition

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***Operations Management, 13e* (Heizer/Render/Munson)**
Chapter 1 Operations and Productivity

Section 1   What is Operations Management?

1) Some of the operations-related activities of Hard Rock Café include designing music instruments and analyzing them for cost and labor requirements.
Answer: FALSE
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Because Hard Rock Cafés are themed restaurants, operations managers focus their layout design efforts on attractiveness while paying little attention to efficiency.
Answer: FALSE
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) All organizations, including service firms such as banks and hospitals, have a production function.
Answer: TRUE
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Operations management is the set of activities that creates value in the form of tangible goods, not services, by transforming inputs into outputs.
Answer: FALSE
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) Production is the creation of goods and services.
Answer: TRUE
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) At Hard Rock Café, tasks that reflect operations or operations management include:
A) designing efficient layouts.
B) providing meals.
C) receiving ingredients.
D) preparing effective employee schedules.
E) all of these.
Answer: E
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) An operations task performed at Hard Rock Café is:
A) borrowing funds to build a new restaurant.
B) advertising changes in the restaurant menu.
C) creating the company income statement.
D) preparing employee schedules.
E) overseeing financial reports.
Answer: D
Diff: 2
Objective: LO 1.1 Define operations management
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Operations management is applicable:
A) mostly to the service sector.
B) to services exclusively.
C) mostly to the manufacturing sector.
D) to all firms, whether manufacturing or service.
E) to the manufacturing sector exclusively.
Answer: D
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) ________ is the set of activities that creates value in the form of goods and services by transforming inputs into outputs.
Answer: Operations management
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) Identify three or more operations-related tasks carried out by Hard Rock Café.
Answer: Providing custom meals; designing, testing, and costing meals; acquiring, receiving, and storing supplies; recruiting and training employees; preparing employee schedules; designing efficient restaurant layouts.
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Define operations management. Will your definition accommodate both manufacturing and service operations?
Answer: Operations management can be defined as the management of all activities directly related to the creation of goods and/or services through the transformation of inputs into outputs. Yes.
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 2 Organizing to Produce Goods and Services

1) Which of the following are the primary functions of all organizations?
A) production/operations, marketing, and human resources
B) marketing, human resources, and finance/accounting
C) sales, quality control, and production/operations
D) marketing, production/operations, and finance/accounting
E) research and development, finance/accounting, and purchasing
Answer: D
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Which of the following tasks within a manufacturing firm is performed by the operations function?
A) market research
B) borrowing funds
C) sales promotion
D) stock issue
E) quality assurance and control
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Which of the following would NOT be an operations function in a commercial bank?
A) auditing
B) teller scheduling
C) maintenance
D) collection
E) check clearing
Answer: A
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) The marketing function is concerned with:
A) producing goods or providing services.
B) procuring materials, supplies, and equipment.
C) building and maintaining a positive image.
D) generating the demand for the organization's products or services.
E) securing monetary resources.
Answer: D
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) The purchasing function is concerned with:
A) producing goods or providing services.
B) procuring materials, supplies, and equipment.
C) building and maintaining a positive image.
D) generating the demand for the organization's products or services.
E) securing monetary resources.
Answer: B
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) The finance function is concerned with:
A) producing goods or providing services.
B) procuring materials, supplies, and equipment.
C) building and maintaining a positive image.
D) generating the demand for the organization's products or services.
E) securing monetary resources.
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Which of the following tasks within an airline company is related to operations?
A) crew scheduling
B) international monetary exchange
C) sales
D) advertising
E) accounts payable
Answer: A
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Marketing, production/operations, and ________ are the three functions that all organizations must perform to create goods and services.
Answer: finance/accounting
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 3 The Supply Chain

1) Competition in the 21st century is no longer between companies; it is between *supply chains*.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) An accounting firm that provides tax services for a company would not be considered to be part of that company's supply chain.
Answer: FALSE
Diff: 2
AACSB: Reflective thinking
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

3) What is a global network of organizations and activities that supply a firm with goods and services?
A) supply tree
B) provider network
C) supply chain
D) vendor network
E) vendor tree
Answer: C
Diff: 1
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

4) Which of the following fosters specialization and worldwide supply chains?
A) more expensive transportation
B) instant communication
C) economies of scope
D) managers with a broad knowledge of many things
E) high trade tariffs
Answer: B
Diff: 2
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

5) A(n) ________ is a global network of organizations and activities that supply a firm with goods and services.
Answer: supply chain
Diff: 1
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

6) Competition in the 21st century is no longer between companies; it is between ________.
Answer: supply chains
Diff: 2
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

7) Identify up to four phenomena that foster specialization and worldwide supply chains.
Answer: (1) a more technologically oriented society, (2) specialized expert knowledge, (3) instant communication, and (4) cheaper transportation
Diff: 2
Learning Outcome: Compare and contrast different sourcing strategies including outsourcing and insourcing

Section 4 Why Study OM?

1) One reason to study operations management is to learn how people organize themselves for productive enterprise.
Answer: TRUE
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Reasons to study operations management include:
A) studying how people organize themselves for productive enterprise.
B) knowing how goods and services are consumed.
C) understanding what human resource managers do.
D) learning about a costly part of the enterprise.
E) A and D
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Reasons to study operations management include learning about:
A) how people organize themselves for productive enterprise.
B) how goods and services are produced.
C) what operations managers do.
D) a costly part of the enterprise.
E) all of these.
Answer: E
Diff: 1
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Brandon Production is a small firm focused on the assembly and sale of custom computers. The firm is facing stiff competition from low-priced alternatives, and is looking at various solutions to remain competitive and profitable. Current financials for the firm are shown in the table below. In the first option, marketing will increase sales (and costs) by 50%. The next option is Vendor (Supplier) changes, which would result in a decrease of 12% in the cost of inputs. Finally, there is an OM option, which would reduce production costs by 25%. Which of the options would you recommend to the firm if it can only pursue one option? In addition, comment on the feasibility of each option.

Business Function	Current Value
Cost of Inputs	$50,000
Production Costs	$30,000
Revenue	$83,000

Answer: Marketing would increase sales to $124,500 ($83,000 ∗ 1.5) but increase cost of inputs and production costs to $120,000 (($50,000 + $30,000) ∗ 1.5). This would net an additional $1,500 of profit ($124,500 - $120,000 - current profit of $3,000). Vendor (Supplier) changes would decrease cost of inputs to $44,000 ($50,000 ∗ .88), resulting in $6,000 of additional profit (savings) ($50,000 - $44,000). Finally, the OM option would save $7,500 ($30,000 - $30,000 ∗ .75), resulting in an additional $7,500 of profit. Thus, the OM option is the most profitable. Comments on feasibility should center on the near impossibility of increasing revenue by 50%, while noting the other two options are difficult but not impossible.
Diff: 2
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 5 What Operations Managers Do

1) The operations manager performs the management activities of planning, organizing, staffing, leading, and controlling of the OM function.
Answer: TRUE
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) "Considers inventory ordering and holding decisions" is within the strategic operations management decision area of *managing quality*.
Answer: FALSE
Diff: 1
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) In order to have a career in operations management, one must have a degree in statistics or quantitative methods.
Answer: FALSE
Diff: 1
Objective: LO 1.3 Identify career opportunities in operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) What are the five elements in the management process?
A) plan, direct, update, lead, and supervise
B) accounting, finance, marketing, operations, and management
C) organize, plan, control, staff, and manage
D) plan, organize, staff, lead, and control
E) plan, lead, organize, manage, and control
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) Which of the following is NOT an element of the management process?
A) controlling
B) leading
C) planning
D) pricing
E) staffing
Answer: D
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) An operations manager is NOT likely to be involved in:
A) the design of goods and services to satisfy customers' wants and needs.
B) the quality of goods and services to satisfy customers' wants and needs.
C) the identification of customers' wants and needs.
D) work scheduling to meet the due dates promised to customers.
E) maintenance schedules.
Answer: C
Diff: 1
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) All of the following decisions fall within the scope of operations management EXCEPT for:
A) creating the company income statement.
B) design of goods and services.
C) location strategies.
D) managing quality and statistical process control.
E) human resources, job design and work measurement.
Answer: A
Diff: 1
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) The 10 strategic operations management decisions include:
A) layout strategies.
B) maintenance.
C) process and capacity strategies.
D) managing quality.
E) all of these.
Answer: E
Diff: 1
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Which of the following is NOT one of the 10 strategic operations management decisions?
A) layout strategies
B) maintenance
C) process and capacity strategies
D) mass customization
E) supply chain management
Answer: D
Diff: 2
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) Which of the following is one of the 10 strategic operations management decisions?
A) depreciation policy for tax returns
B) advertising
C) process and capacity strategies
D) pricing
E) debt/equity ratio
Answer: C
Diff: 1
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Which of the following are among the 10 strategic operations management decisions?
I. design of goods and services
II. managing quality
III. layout strategies
IV. marketing
V. pricing of goods and services
A) I, II, V
B) I, II, IV
C) II, III, V
D) I, II, III
E) I, II, III, IV, V
Answer: D
Diff: 2
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) Which of the following influences layout design?
A) inventory requirements
B) capacity needs
C) personnel levels
D) technology
E) All of these influence layout decisions.
Answer: E
Diff: 2
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) Which of the following is NOT a strategic operations management decision?
A) maintenance
B) price
C) layout
D) quality
E) inventory
Answer: B
Diff: 2
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) Identify two operations-related tasks carried out by Hard Rock Café. Match each to its related area of the 10 strategic operations management decisions.
Answer: Providing custom meals: design of goods and services; designing, testing, and costing meals: design of goods and services; acquiring, receiving, and storing supplies: supply chain management; recruiting and training employees: human resources, job design and measurement; preparing employee schedules: scheduling; designing efficient restaurant layouts: layout strategies.
Diff: 2
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

15) Identify the 10 strategic OM decisions.
Answer: Design of goods and services, managing quality, process strategies, location strategies, layout strategies, human resources, supply chain management, inventory management, scheduling, and maintenance.
Diff: 3
Objective: LO 1.2 Identify the 10 strategic decisions of operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 6 The Heritage of Operations Management

1) Henry Ford is known as the Father of Scientific Management.
Answer: FALSE
Diff: 1
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Shewhart's contributions to operations management came during the Scientific Management Era.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Walter Shewhart is listed among the important people of operations management because of his contributions to:
A) assembly line production.
B) measuring productivity in the service sector.
C) just-in-time inventory methods.
D) statistical quality control.
E) information technology.
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Walter Shewhart, in the ________, provided the foundations for ________ in operations management.
A) 1920s; statistical sampling
B) United Kingdom; mass production
C) U.S. Army; logistics
D) nineteenth century; interchangeable parts
E) 1900s; queuing theory
Answer: A
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) Eli Whitney, in the ________, provided the foundations for ________ in operations management.
A) 1920s; statistical sampling
B) United Kingdom; mass production
C) U.S. Army; logistics
D) nineteenth century; interchangeable parts
E) 1890s; queuing theory
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) Who was the person most responsible for popularizing interchangeable parts in manufacturing?
A) Frederick W. Taylor
B) Henry Ford
C) Eli Whitney
D) Whitney Houston
E) Lillian Gilbreth
Answer: C
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) The "Father of Scientific Management" is:
A) Henry Ford.
B) Frederick W. Taylor.
C) W. Edwards Deming.
D) Frank Gilbreth.
E) just a figure of speech, not a reference to a person.
Answer: B
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Henry Ford is noted for his contributions to:
A) material requirements planning.
B) statistical quality control.
C) assembly line operations.
D) scientific management.
E) time and motion studies.
Answer: C
Diff: 1
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Who among the following is associated with contributions to quality control in operations management?
A) Charles Babbage
B) Henry Ford
C) Frank Gilbreth
D) W. Edwards Deming
E) Henri Fayol
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) The field of operations management is shaped by advances in which of the following fields?
A) chemistry and physics
B) industrial engineering and management
C) biology and anatomy
D) information technology
E) all of the these
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Which of the following statements is TRUE?
A) The person most responsible for initiating the use of interchangeable parts in manufacturing was Eli Whitney.
B) The origins of management by exception are generally credited to Frederick W. Taylor.
C) The person most responsible for initiating the use of interchangeable parts in manufacturing was Walter Shewhart.
D) The origins of the scientific management movement are generally credited to Henry Ford.
E) The person most responsible for initiating the use of interchangeable parts in manufacturing was Henry Ford.
Answer: A
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) Which of the following pioneers was NOT making a professional impact during the Scientific Management Era?
A) Frank Gilbreth
B) W. Edwards Deming
C) Henry L. Gantt
D) Lillian Gilbreth
E) Frederick W. Taylor
Answer: B
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) Internet of Things is associated with which operations management time period?
A) Customization Focus
B) Quality Focus
C) Globalization Focus
D) Cost Focus.
E) Just-In-Time Focus
Answer: C
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) Which of the following events occurs mainly during the Globalization Era?
A) Electronic Data Interchange
B) Computer-Aided Design
C) Industry 4.0
D) Enterprise Resource Planning
E) Gantt Charts
Answer: C
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

15) Which of the following is TRUE regarding the significant events in operations management?
A) The Mass Customization Era focused on quality.
B) The Globalization Era will start approximately in 2025.
C) Eli Whitney initiated the revolution of Industry 4.0.
D) The concept of linear programming first appeared in the Lead Production Era.
E) Charles Sorensen was instrumental in the development of the moving assembly line.
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

16) Henry Ford and ________ are credited with the development of the moving assembly line.
Answer: Charles Sorensen
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

17) Identify the items that Frederick W. Taylor believed management should be more responsible for.
Answer: He believed that management should be more responsible for matching employees to the right job, providing the proper training, providing proper work methods and tools, and establishing legitimate incentives for work to be accomplished.
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

18) Operations managers should be well versed in what disciplines in order to make good decisions?
Answer: Analytical tools, information technology, and often one of the biological or physical sciences.
Diff: 2
Objective: LO 1.3 Identify career opportunities in operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 7 Operations for Goods and Services

1) Customer interaction is often high for manufacturing processes, but low for services.
Answer: FALSE
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Manufacturing now constitutes the largest economic sector in postindustrial societies.
Answer: FALSE
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Although the *number* of people employed in manufacturing in the United States has decreased since 1950, each person is now producing almost 50 times more than in 1950.
Answer: FALSE
Diff: 1
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Which of the following is the best example of a pure service?
A) counseling
B) oil change
C) heart transplant
D) electric Co-Op
E) restaurant
Answer: A
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) The service sector makes up approximately what percentage of all jobs in the United States?
A) 12%
B) 40%
C) 66%
D) 86%
E) 94%
Answer: D
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) Which is NOT true regarding differences between goods and services?
A) Tangible goods are generally produced and consumed simultaneously; services are not.
B) Most goods are common to many customers; services are often unique to the final customer.
C) Services tend to have a more inconsistent product definition than goods.
D) Services tend to have higher customer interaction than goods.
E) None, i.e., all of these are true.
Answer: A
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Which is NOT true regarding differences between goods and services?
A) Services are generally produced and consumed simultaneously; tangible goods are not.
B) Services tend to be more knowledge-based than goods.
C) Services tend to have a more inconsistent product definition than goods.
D) Goods tend to have higher customer interaction than services.
E) Reselling is unusual in services; goods often have some residual value.
Answer: D
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Which of the following services is LEAST likely to be unique, i.e., customized to a particular individual's needs?
A) dental care
B) hairdressing
C) legal services
D) elementary education
E) computer consulting
Answer: D
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Which of the following is NOT a typical service attribute?
A) intangible product
B) easy to store
C) customer interaction is high
D) simultaneous production and consumption
E) difficult to resell
Answer: B
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) Which of the following attributes is most typical of a service?
A) production and consumption occur simultaneously
B) tangible
C) mass production
D) consistency
E) easy to automate
Answer: A
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Which of the following is a similarity between goods and services?
A) mass production
B) consistency
C) automation
D) Both have quality standards.
E) Both can usually be kept in inventory.
Answer: D
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) When a tangible component is not included in a service, such as with counseling, it is called a(n) ________.
Answer: pure service
Diff: 1
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) How do services differ from goods? Identify five ways.
Answer: Pick from the following: a service is usually intangible; it is often produced and consumed simultaneously; it is often unique; it involves high customer interaction; product definition is inconsistent; it is often knowledge-based; it is frequently dispersed; quality may be hard to evaluate; and reselling is unusual.
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) Identify the similarities between the operational activities for goods and services.
Answer: Both have quality standards, are designed and produced on a schedule that meets customer demand, and are made in a facility where people are employed.
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 8 The Productivity Challenge

1) Productivity is generally more difficult to improve in the service sector than in the manufacturing sector.
Answer: TRUE
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) A knowledge society is one that has migrated from work based on knowledge to one based on manual work.
Answer: FALSE
Diff: 1
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Productivity is the total value of all inputs to the transformation process divided by the total value of the outputs produced.
Answer: FALSE
Diff: 1
Objective: LO 1.6 Compute single-factor productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Illiteracy and poor diets have been known to cost countries up to what percent of their productivity?
A) 2%
B) 5%
C) 10%
D) 20%
E) 50%
Answer: D
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
AACSB: Diverse and multicultural work environments
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) A foundry produces circular utility access hatches (manhole covers). If 16 covers are produced in an 8-hour shift, the productivity of the line is:
A) 0.5 covers/hr.
B) 2 covers/hr.
C) 5 covers/hr.
D) 128 covers/hr.
E) 20 covers/hr.
Answer: B
Diff: 1
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) A foundry produces circular utility access hatches (manhole covers). Currently, 120 covers are produced in a 10-hour shift. If labor productivity decreases by 20% due to a process change, it would then be:
A) 14.4 covers/hr.
B) 9.6 covers/hr.
C) 144 covers/hr.
D) 96 covers/hr.
E) 11.8 covers/hr.
Answer: B
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Gibson Valves produces cast bronze valves on an assembly line. If 1200 valves are produced in an 8-hour shift, the productivity of the line is:
A) 20 valves/hr.
B) 120 valves/hr.
C) 200 valves/hr.
D) 150 valves/hr.
E) 1200 valves/hr.
Answer: D
Diff: 1
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Gibson Valves produces cast bronze valves on an assembly line, currently producing 1600 valves each 8-hour shift. If the productivity increases by 30%, it would then be:
A) 60 valves/hr.
B) 260 valves/hr.
C) 220 valves/hr.
D) 204 valves/hr.
E) 2080 valves/hr.
Answer: B
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Gibson Valves produces cast bronze valves on an assembly line, currently producing 1600 valves per shift. If the production is increased to 1920 valves per shift, labor productivity will increase by:
A) 17%.
B) 20%.
C) 25%.
D) 40%.
E) 50%.
Answer: B
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) The Dulac Box plant produces 1000 cypress packing boxes in two 10-hour shifts. What is the productivity of the plant?
A) 25 boxes/hr.
B) 50 boxes/hr.
C) 5000 boxes/hr.
D) 0.04 boxes/hr.
E) 500 boxes/hr.
Answer: B
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) The Dulac Box plant works two 8-hour shifts each day. In the past, 1000 cypress packing boxes were produced by the end of each day. The use of new technology has enabled them to increase productivity by 30%. Productivity is now approximately:
A) 32.5 boxes/hr.
B) 40.6 boxes/hr.
C) 162.5 boxes/hr.
D) 81.25 boxes/hr.
E) 125 boxes/hr.
Answer: D
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) The Dulac Box plant produces 500 cypress packing boxes in two 10-hour shifts. Due to higher demand, they have decided to operate three 8-hour shifts instead. They are now able to produce 600 boxes per day. What has happened to productivity?
A) It has not changed.
B) It has increased by 37.5 boxes/hr.
C) It has increased by 20%.
D) It has decreased by 8.3%.
E) It has decreased by 9.1%.
Answer: A
Diff: 2
Objective: LO 1.5 Explain the difference between production and productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) Productivity measurement is complicated by:
A) the competition's output.
B) the fact that precise units of measure are often unavailable.
C) stable quality.
D) the workforce size.
E) the type of equipment used.
Answer: B
Diff: 2
Objective: LO 1.5 Explain the difference between production and productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) The total of all outputs produced by the transformation process divided by the total of the inputs is:
A) utilization.
B) greater in manufacturing than in services.
C) defined only for manufacturing firms.
D) multifactor productivity.
E) single-factor productivity.
Answer: D
Diff: 2
Objective: LO 1.7 Compute multifactor productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

15) Which productivity variable has the greatest potential to increase productivity?
A) labor
B) globalization
C) management
D) capital
E) energy
Answer: C
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

16) Which of the following nets the largest productivity improvement?
A) increase output 15%
B) decrease input 15%
C) increase both output and input by 5%
D) increase output 10%, decrease input 3%
E) decrease input 10%, increase output 3%
Answer: B
Diff: 3
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

17) Productivity can be improved by:
A) increasing inputs while holding outputs steady.
B) decreasing outputs while holding inputs steady.
C) increasing inputs and outputs in the same proportion.
D) decreasing inputs while holding outputs steady.
E) none of the above.
Answer: D
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

18) The largest contributor to productivity increases is ________, estimated to be responsible for ________ of the annual increase.
A) management; over one-half
B) Mr. Deming; one-half
C) marketing and sales; two-thirds
D) capital; 90%
E) technology; over one-half
Answer: A
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

19) The factor responsible for the largest portion of productivity increase in the United States is:
A) labor.
B) management.
C) capital.
D) All three combined; it is impossible to determine the contribution of individual factors.
E) none of these.
Answer: B
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

20) Which of the following is NOT true when explaining why productivity tends to be lower in the service sector than in the manufacturing sector?
A) Services are typically labor-intensive.
B) Services are often difficult to evaluate for quality.
C) Services are often an intellectual task performed by professionals.
D) Services are difficult to automate.
E) Service operations are typically capital intensive.
Answer: E
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

21) Three commonly used productivity variables are:
A) quality, external elements, and precise units of measure.
B) labor, capital, and management.
C) technology, raw materials, and labor.
D) education, diet, and social overhead.
E) quality, efficiency, and low cost.
Answer: B
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

22) The service sector has lower productivity improvements than the manufacturing sector because:
A) the service sector uses less skilled labor than manufacturing.
B) the quality of output is lower in services than manufacturing.
C) services usually are labor-intensive.
D) service sector productivity is hard to measure.
E) the service sector is often easy to mechanize and automate.
Answer: C
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

23) Productivity tends to be more difficult to improve in the service sector because the work is:
A) often difficult to automate.
B) typically labor-intensive.
C) frequently processed individually.
D) often an intellectual task performed by professionals.
E) All of these make service productivity more difficult.
Answer: E
Diff: 2
Objective: LO 1.4 Explain the distinction between goods and services
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

24) A small metal shop operates 10 hours each day, producing 100 parts/hour. If productivity were increased 20%, how many hours would the plant have to work to produce 1000 parts?
A) less than 2 hours
B) between 9 and 10 hours
C) between 2 and 6 hours
D) between 6 and 8 hours
E) between 8 and 9 hours
Answer: E
Diff: 3
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

25) A cleaning company uses 10 lbs each of chemicals A, B and C for each house it cleans. After some quality complaints, the company has decided to increase its use of chemical A by an additional 10 lbs for each house. By what % has productivity (houses per pound of chemical) fallen?
A) 0%
B) 10%
C) 15%
D) 25%
E) 33%
Answer: D
Diff: 3
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

26) A cleaning company uses $10 of chemicals, $40 of labor, and $5 of misc. expenses for each house it cleans. After some quality complaints, the company has decided to increase its use of chemicals by 50%. By what percentage has multifactor productivity fallen?
A) 0%
B) 8.3%
C) 25%
D) 50%
E) 16.7%
Answer: B
Diff: 3
Objective: LO 1.7 Compute multifactor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

27) Starbucks stopped requiring signatures on credit-card purchases under $25 in an attempt to reduce ________.
Answer: transaction time (or service time)
Diff: 1
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

28) ________ is the total of all outputs produced by the transformation process divided by the total of the inputs.
Answer: Multifactor productivity
Diff: 1
Objective: LO 1.7 Compute multifactor productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

29) Productivity is the ratio of ________ to ________. Using this relationship, productivity can be improved by ________ or ________.
Answer: outputs; inputs; reducing inputs while holding outputs constant; increasing outputs while holding inputs constant.
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

30) Identify the three productivity variables used in the text.
Answer: The three common variables are labor, capital, and management.
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

31) What is a knowledge society?
Answer: A knowledge society is one in which much of the labor force has migrated from manual work to work based on knowledge.
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

32) As the administrative manager in a law office, you have been asked to develop a system for evaluating the productivity of the 15 lawyers in the office. What difficulties are you going to have in doing this, and how are you going to overcome them?
Answer: Productivity measures for a law office are difficult. Simple criteria, like number of cases processed, fail to consider complexity of the case. Even counting wins is difficult, as many cases are settled with some sort of compromise. External elements such as the quality of the opposing counsel and the tenacity of the opposition also make counting look rather silly.

Categories of cases can help (i.e., uncontested divorce, no personal injury auto case, etc.). However, many firms end up counting hours billed. This in turn leads to other problems, as noted by the number of false billing cases.
Diff: 3
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

33) List three key variables for improved labor productivity.
Answer: Basic education appropriate for an effective labor force; diet of the labor force; social overhead that makes labor available, such as transportation and sanitation.
Diff: 2
Objective: LO 1.8 Identify the critical variables in enhancing productivity
AACSB: Diverse and multicultural work environments
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

34) Susan has a part-time business producing seasonal plywood yard ornaments for resale at local craft fairs and bazaars. She currently works 8 hours per day to produce 24 ornaments.
(a) What is her productivity?
(b) She thinks that by redesigning the ornaments and switching from use of a wood glue to a hot-glue gun she can increase her total production to 30 ornaments per day. What is her new productivity?
(c) What is her percentage increase in productivity?
Answer: (a) 24 ornaments/8 hours = 3 ornaments/hour
(b) 30 ornaments/8 hours = 3.75 ornaments/hour
(c) Change in productivity = 0.75 ornaments/hour; percent change = 0.75/3 = 25%
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

35) A firm cleans chemical tank cars in the Bay St. Louis area. With standard equipment, the firm typically cleaned 70 chemical tank cars per month. They utilized 12 gallons of solvent, and two employees worked 20 days per month, 8 hours a day. The company decided to switch to a larger cleaning machine. Last April, they cleaned 60 tank cars in only 15 days. They utilized 15 gallons of solvent, and the two employees worked 8 hours a day.
(a) What was their raw material and their labor productivity with the standard equipment?
(b) What is their raw material and their labor productivity with the larger machine?
(c) What is the change in each productivity measure?
Answer:

Resource	**(a) Standard Equipment**	**(b) Larger Machine**	**(c) Percent Change**
Solvent	70/12 = 5.83	60/15 = 4	(4 — 5.83)/5.83 = −31.39%
Labor	70/320 = 0.22	60/240 = 0.25	(0.25 — 0.22)/0.22 = 13.64%

Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

36) The Dulac Box plant produces wooden packing boxes to be used in the local seafood industry. Current operations allow the company to make 500 boxes per day, in two 8-hour shifts (250 boxes per shift). The company has introduced some small changes in equipment, and conducted appropriate job training, so that production levels have risen to 400 boxes per shift. These changes did not require any change in the amount of capital spending or energy use. What is the firm's new labor productivity?
Answer: 800 boxes per day / 16 hours = 50 boxes per hour
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

37) Mark's Ceramics spent $4000 on a new kiln last year in the belief that it would cut annual energy usage 25% over the old kiln. This kiln is an oven that turns "greenware" into finished pottery. Mark is concerned that the new kiln requires extra labor hours for its operation. Mark wants to check the energy savings of the new oven, and also to look over other measures of their productivity to see if the change really was beneficial. Mark has the following data to work with:

	Last Year	This Year
Production (finished units)	4000	4000
Greenware (pounds)	5000	5000
Labor (hrs)	350	390
Capital ($)	15000	20000
Energy (kWh)	4000	2800

Were the modifications beneficial?
Answer: The energy modifications generated more than the expected energy savings; however, labor and capital productivity decreased.

Resource	Last Year	This Year	Change	Pct. Change
Labor	4000 / 350 = 11.43	4000 / 390 = 10.26	−1.17	−10.24%
Capital	4000 / 15000 = 0.27	4000 / 20000 = .20	−0.07	−25.93%
Energy	4000 / 4000 = 1.00	4000 / 2800 = 1.43	0.43	43%

Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

38) Martin Manufacturing has implemented several programs to improve its productivity. They have asked you to evaluate the firm's productivity by comparing this year's performance with last year's. The following data are available:

	Last Year	This Year
Output	10,500 units	12,100 units
Labor Hours	12,000	13,200
Utilities	$7,600	$8,250
Capital	$83,000	$88,000

Has Martin Manufacturing improved its productivity during the past year?
Answer: Productivity improved in all three categories this year; utilities showed the greatest increase, and labor the least.

Resource	Last Year	This Year	Change	Pct. Change
Labor	10500 / 12000 = 0.88	12100 / 13200 = 0.92	0.04	4.55%
Utilities	10500 / 83000 = 0.13	12100 / 88000 = 0.14	0.01	7.69%
Capital	10500 / 7600 = 1.38	12100 / 8250 = 1.47	0.09	6.52%

Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

39) Felicien grows mirlitons (that's Cajun for Chayote squash) in his 100 by 100-foot garden. He then sells the crop at the local farmers' market. Two summers ago, he was able to produce and sell 1200 pounds of mirlitons. Last summer, he tried a new fertilizer that promised a 50% increase in yield. He harvested 1700 pounds. Did the fertilizer live up to its promise?
Answer: Since the productivity gain was 41.67%, which is less than 50%, the fertilizer was not as good as advertised.

Two Summers Ago	Last Summer	Change
1200 ÷ 10,000 = .12 1bs/sq. ft	1700 ÷ 10,000 = .17 lbs/sq. ft	(.17 - .12) ÷ .12 = 41.67%

Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

40) The Dulac Box plant produces wooden packing boxes to be used in the local seafood industry. Current operations allow the company to make 500 boxes per day, in two 8-hour shifts (250 boxes per shift). The company has introduced some moderate changes in equipment, and conducted appropriate job training, so that production levels have risen to 350 boxes per shift. Labor costs average $15 per hour for each of the 5 full-time workers on each shift. Capital costs were previously $3,000 per day and rose to $3,200 per day with the equipment modifications. Energy costs were unchanged by the modifications, at $400 per day. What is the firm's multifactor productivity before and after the changes?
Answer: MFP before: 500 boxes / ($15 × 5 × 16 + $3000 + $400) = 500 / $4600 = 0.109 boxes/dollar
MFP after: 700 boxes / ($15 × 5 × 16 + $3200 + $400) = 700 / 4800 = 0.146 boxes/dollar
Diff: 2
Objective: LO 1.7 Compute multifactor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

41) Gibson Products produces cast bronze valves for use in offshore oil platforms. Currently, Gibson produces 1600 valves per day. The 20 workers at Gibson work from 7 a.m. until 4 p.m., with 30 minutes off for lunch and a 15-minute break during the morning work session and another at the afternoon work session. Gibson is in a competitive industry and needs to increase productivity to stay competitive. They feel that a 20 percent increase is needed.

Gibson's management believes that the 20 percent increase will not be possible without a change in working conditions, so they change work hours. The new schedule calls on workers to work from 7:30 a.m. until 4:30 p.m., during which workers can take one hour off at any time of their choosing. Obviously, the number of paid hours is the same as before, but production increases, perhaps because workers are given a bit more control over their workday. After this change, valve production increased to 1800 units per day.

(a) Calculate labor productivity for the initial situation.
(b) Calculate labor productivity for the hypothetical 20 percent increase.
(c) What is the productivity after the change in work rules?
(d) Write a short paragraph analyzing these results.
Answer:
(a) Workers are active for eight hours per day; labor productivity is 10 valves/hour
(b) If productivity rises by 20 percent, to 12 valves/hour; output would be 12 × 8 × 20 = 1920
(c) New productivity is 1800 / (20 × 8) = 11.25 valves/hour
(d) Gibson did not gain the desired 20 percent increase in productivity, but they did gain 12.5%, without extra equipment or energy, and without increasing the labor cost.
Diff: 3
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

42) A local university is considering changes to its class structure in an effort to increase professor productivity. The old schedule had each professor teaching 5 classes per week, with each class meeting an hour per day on Monday, Wednesday, and Friday. Each class contained 20 students. The new schedule has each professor teaching only 3 classes, but each class meets daily (Mon.-Fri.) for an hour. New classes contain 50 students.
(a) Calculate the labor productivity for the initial situation (students/hour).
(b) Calculate the labor productivity for the schedule change (students/hour).
(c) Are there any ethical considerations that should be accounted for?
(d) Suppose that each teacher also is required to have 2 hours of Office Hours each day he/she taught class. Is the schedule change a productivity increase?
Answer:
(a) Professors teach 100 students in 15 hours or 6.67 students/hour.
(b) Professors teach 150 students in 15 hours or 10 students/hour.
(c) Responses should focus on honoring stakeholder commitment and can include students per professor ratio, class sizes, quality of education, etc.
(d) Initial productivity is 100 students in 21 hours or 4.76 students/hour. New productivity is 150 students in 25 hours or 6 students/hour, an increase or 1.24 students/hour.
Diff: 3
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

43) A grocery chain is considering the installation of a set of 4 self-checkout lanes. The new self-checkout lane setup will replace 2 old cashier lanes that were staffed by a cashier and bagger on each lane. One cashier mans all 4 self-checkouts (answering questions, checking for un-scanned items, taking coupons, etc). Checkout on the new lanes takes 2 minutes (customers bag their own orders) while checkout with the old lanes took only 45 seconds. In addition, the electricity costs for both setups are $0.05 per checkout while bagging (material) costs are $0.10 per checkout with the old system and $0.15 for the new system. The new lanes also require $100/shift in capital costs. Assume that the lanes are always in use for 8 hours per day (1 shift) and that a worker makes $10/hour.
(a) How many checkouts did the old system provide in a shift?
(b) How many checkouts does the new system provide?
(c) What is the multifactor productivity for each system?
Answer: (a) (2 lanes)(8 hours)(3600 seconds/hour)(1 checkout/45 seconds) = 1280 checkouts
(b) (4 lanes)(8 hours)(60 minutes/hour)(1 checkout/2 min) = 960 checkouts
(c) Cost for the old system = (4 workers)(8 hours)($10/hour) + ($0.10)(1280) + ($0.05)(1280) = $512. Cost for the new system = (1 worker)(8 hours)($10/hour) + ($0.15)(960) + ($0.05)(960) + $100 = $372. Multifactor productivity for old system = 1280 checkouts / $512 = 2.5 checkouts/$. Multifactor productivity for new system = 960 checkouts / $372 = 2.6 checkouts/$.
Diff: 3
Objective: LO 1.7 Compute multifactor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

44) A swimming pool company has 100,000 labor hours available per summer and with a labor productivity of 5 pools per 4,000 hours.
(a) How many pools can the company install this summer?
(b) Suppose the multifactor productivity was one pool per $25,000. How much should the company expect to spend this summer constructing the pools?
Answer:
(a) 100,000 hours × 5 pools/4000 hours = 125 pools
(b) 125 pools × $25,000/pool = $3,125,000
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

45) An industrial plant needs to make 100,000 parts per month to meet demand. Each month contains 20 working days, each of which allows for 3 separate 8 hour shifts.
(a) If a worker can produce 10 parts/hour, how many workers are needed on each shift?
(b) If each shift has 100 workers, what is the productivity of an individual worker?
(c) If material costs are $10/part, capital costs are $100,000 and labor costs are $10/hour, what is the multifactor productivity of the plant from part (a)?
Answer:
(a) 100,000 parts × (1 hour / 10 parts) × (1 shift / 8 hours) × (1 worker/60 shifts) = 20.83 = 21 workers
(b) 100,000 parts / [(60 shifts/worker) × (100 workers) × (8 hours/shift)] = 2.08 parts/hour
(c) 100,000 parts / [($10/part) × (100,000 parts) + $100,000 + (21 workers) × (60 shifts/worker) × (8 hours/shift) × ($10/hour)] = .083 parts/$1
Diff: 2
Objective: LO 1.7 Compute multifactor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

46) The local fast-food store experienced the following number of customers on the night shift:

Hour	Customers
12 AM	35
1 AM	28
2 AM	15
3 AM	5
4 AM	2
5 AM	1

If the store was staffed by three workers, what was the average productivity per worker, in customers/hour?
Answer: (35 + 28 + 15 + 5 + 2 + 1) customers/ (3 workers ∗ 6 hours/worker) = 86/18 = 4.78 customers/hour
Diff: 2
Objective: LO 1.6 Compute single-factor productivity
AACSB: Analytical thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 9 Current Challenges in Operations Management

1) Lean manufacturing means designing green products and packaging that minimize resource use, can be recycled or reused, and are generally environmentally friendly.
Answer: FALSE
Diff: 1
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Technology combined with rapid international communication of news, entertainment, and lifestyles is dramatically increasing the life span of products.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Current challenges in operations management include all of the following EXCEPT:
A) lean operations.
B) rapid product development.
C) mass customization.
D) sustainability.
E) increased communication cost.
Answer: E
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Which of the following statements about challenges in operations management is FALSE?
A) Operations managers are outsourcing and building long-term partnerships with critical players in the supply chain.
B) Local or national focus is being replaced by global focus.
C) Sustainable production is being replaced by a low-cost focus.
D) Rapid product development is partly the result of shorter product cycles.
E) The goal of mass customization is to produce customized products, whenever and wherever needed.
Answer: C
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) ________ is the ability of the organization to be flexible enough to cater to the individual whims of consumers.
Answer: Mass customization
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) ________ means designing green products and packaging that minimize resource use, can be recycled or reused, and are generally environmentally friendly.
Answer: Sustainability
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Why are organizations changing from standardization to mass customization?
Answer: In the global marketplace, the cultural and individual differences become obvious. Therefore, as consumers become increasingly aware of innovation and options, substantial pressure is placed on firms to respond in a creative way.
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Why are organizations becoming more global?
Answer: Organizations are becoming more global with the decline in the costs of communication and transportation. Additionally, resources in the form of capital, materials, talent, and labor are also now global.
Diff: 2
Objective: LO 1.1 Define operations management
Learning Outcome: Discuss the influences of the global competitive environment on operations management

Section 10 Ethics, Social Responsibility, and Sustainability

1) Ethical and social dilemmas arise because stakeholders of a business have conflicting perspectives.
Answer: TRUE
Diff: 1
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

2) Stakeholders are always stockholders.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

3) Which of the following is NOT among the ethical and social challenges facing operations managers?
A) honoring stakeholder commitments
B) training, retaining, and motivating employees
C) efficiently developing and producing safe high-quality green products
D) increasing executive pay
E) providing a safe workplace
Answer: D
Diff: 1
Objective: LO 1.1 Define operations management
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

4) A business's stakeholders, whose conflicting perspectives cause ethical and social dilemmas, include:
A) lenders.
B) suppliers.
C) owners.
D) employees.
E) all of these.
Answer: E
Diff: 1
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

5) What term is given to those individuals with a vested interest in an organization, including customers, distributors, suppliers, owners, lenders, employees, and community members?
A) alumni
B) investors
C) vestors
D) stockholders
E) stakeholders
Answer: E
Diff: 1
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

6) Why are operations managers faced with ethical and social challenges?
Answer: Businesses have diverse stakeholders, which include customers, distributors, suppliers, owners, lenders, employees, and the community. These stakeholders hold *conflicting perspectives*.
Diff: 2
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

7) What are some of the ethical and social challenges faced by operations managers?
Answer: Managers are challenged to develop and produce safe, high-quality green products; train, retain, and motivate employees in a safe workplace; and honor stakeholder commitments.
Diff: 2
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

Operations Management, 13e **(Heizer/Render/Munson)**
Chapter 2 Operations Strategy in a Global Environment

Section 1 A Global View of Operations and Supply Chains

1) Boeing's development of the 787 Dreamliner is an example of a company obtaining a competitive advantage through quick response.
Answer: FALSE
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

2) NAFTA seeks to phase out all trade and tariff barriers among Canada, Mexico, and the United States.
Answer: TRUE
Diff: 2
AACSB: Diverse and multicultural work environments

3) The World Trade Organization has helped significantly reduce tariffs around the world.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

4) Production processes are being dispersed to take advantage of national differences in labor costs.
Answer: TRUE
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss the influences of the global competitive environment on operations management

5) NAFTA seeks to phase out all trade and tariff barriers between the United States and Asia.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

6) One reason for global operations is to gain improvements in the supply chain.
Answer: TRUE
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

7) One reason to globalize is to learn to improve operations.
Answer: TRUE
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

8) To attract and retain global talent, and to expand a product's life cycle, are both reasons to globalize.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

9) A product will always be in the same stage of its product life cycle regardless of the country.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

10) The World Trade Organization helps provide governments and industries around the world with protection from firms that engage in unethical conduct.
Answer: TRUE
Diff: 2
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

11) Due to cultural reasons, there are more female managers in the Middle East than in India.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

12) Which of the following statements regarding the Dreamliner 787 is NOT true?
A) Boeing has found partners in over a dozen countries.
B) The new aircraft incorporates a wide range of aerospace technologies.
C) The new aircraft uses engines from not one, but two manufacturers.
D) Boeing is only sourcing 787 components from suppliers in countries that have agreed not to purchase planes from Airbus.
E) Boeing's enormous global supply chain delivers more than a billion parts and subassemblies to Boeing plants every year.
Answer: D
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

13) Boeing's new 787 Dreamliner:
A) is assembled in Washington, D.C.
B) uses engines from Japan.
C) has its fuselage sections built in Australia.
D) has increased efficiency from new engine technology.
E) results from a partnership of about a dozen companies.
Answer: D
Diff: 2

14) Cost cutting in international operations can take place because of:
A) lower taxes and tariffs.
B) lower wage scales.
C) lower indirect costs.
D) less stringent regulations.
E) all of the above.
Answer: E
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

15) Which of the following did the authors NOT suggest as a reason for globalizing operations?
A) reduce costs
B) improve the supply chain
C) pursue stockholder approval ratings
D) understand markets
E) attract and retain global talent
Answer: C
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

16) Multinational organizations can shop from country to country and cut costs through:
A) lower wage scales.
B) lower indirect costs.
C) less stringent regulations.
D) lower taxes and tariffs.
E) all of the these.
Answer: E
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

17) The term *maquiladora* is most synonymous with:
A) free trade zones in Mexico.
B) North Korean forced labor camps.
C) home-based or cottage industry.
D) areas that do not meet U.S. standards for workplace safety and pollution.
E) tax breaks provided by some South American countries to other South American countries.
Answer: A
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

18) Which of the following is TRUE of maquiladoras?
A) They discourage foreign businesses from outsourcing.
B) They assess tariffs only on the value-added work done.
C) They originated in China.
D) None of these
E) All of these
Answer: B
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

19) Which of the following represents a reason for globalizing operations?
A) to improve the supply chain
B) to improve operations
C) to expand a product's life cycle
D) to attract and retain global talent
E) all of these
Answer: E
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

20) Which of the following does NOT represent a valid reason for globalizing operations?
A) reduce costs
B) improve the supply chain
C) reduce responsiveness
D) attract and retain global talent
E) understand markets
Answer: C
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

21) The purpose of NAFTA is to:
A) substitute cheap labor in Mexico for expensive labor in the United States.
B) curb illegal immigration from Mexico to the United States.
C) phase out all trade and tariff barriers between North America and South America.
D) phase out all trade and tariff barriers between the United States, Canada, and Mexico.
E) provide fair and equitable tariff rates for trade between the United States, Canada, and Mexico.
Answer: D
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

22) With reference to cultural and ethical issues, the World Trade Organization has:
A) eliminated bribery.
B) made progress in providing equal protection of intellectual property among nations.
C) phased out all trade and tariff barriers between the United States and Mexico.
D) eliminated slave labor and child labor.
E) played little role in addressing cultural and ethical issues among nations.
Answer: B
Diff: 2
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

23) ________ are areas located along the United States-Mexico border in which factories receive preferential tariff treatment.
Answer: Maquiladoras
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

24) ________ is a free trade agreement among Canada, Mexico, and the United States.
Answer: NAFTA—North American Free Trade Agreement
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

25) ________ and ________ are two issues where significant cultural differences are large, yet progress toward global uniformity is slowly being accepted.
Answer: Bribery, protection of intellectual property
Diff: 3
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

26) An organization that has worked to achieve global uniformity in cultural and ethical issues such as bribery, child labor, and environmental regulations is ________.
Answer: the World Trade Organization
Diff: 1
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

27) Identify five countries from which Boeing's 787 Dreamliner has suppliers.
Answer: Any five of: France, Germany, UK, Italy, Japan, China, South Korea, Sweden, and the United States
Diff: 3
Learning Outcome: Discuss the influences of the global competitive environment on operations management

28) How can global operations improve the supply chain?
Answer: The supply chain can often be improved by locating facilities in countries where unique resources are available.
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

29) How do global operations understand markets?
Answer: Because international operations require interaction with foreign customers, suppliers, and other competitive businesses, international firms inevitably learn about opportunities for new products and services.
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

30) State two examples of cultural and ethical issues that face operations managers in a global environment.
Answer: Student responses will vary, but there are several issues on which there are wide differences from country to country, culture to culture. Among those listed in the text are bribery, child labor, the environment, and intellectual property rights. Students may bring forward from an earlier chapter issues such as environmental regulation or safe work environment, and may raise issues such as product safety.
Diff: 2
AACSB: Ethical understanding and reasoning
Learning Outcome: Discuss the role of operations management in corporate social responsibility and sustainability

31) Since the early 1990s, residents in a number of developing countries have overcome culture, religious, ethnic, and political productivity barriers. These disappearing barriers coupled with simultaneous advances in technology, reliable shipping, and cheap communication have all led to the growth of what three things?
Answer:
1. World trade
2. Global capital markets
3. International movement of people
Diff: 3
Learning Outcome: Discuss the influences of the global competitive environment on operations management

32) Identify four trade agreements that are facilitating the growth of world trade.
Answer: NAFTA, APEC, SEATO, MERCOSUR, CAFTA
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

Section 2 Determining Missions and Strategies

1) An organization's *strategy* is the purpose or rationale for its existence.
Answer: FALSE
Diff: 1
Objective: LO 2.1 Define mission and strategy

2) An effective operations management effort must have a *strategy* so it knows where it is going and a *mission* so it knows how to get there.
Answer: FALSE
Diff: 2
Objective: LO 2.1 Define mission and strategy

3) A firm should formulate its *strategy* before establishing its *mission*.
Answer: FALSE
Diff: 2
Objective: LO 2.1 Define mission and strategy

4) Which of the following activities takes place most immediately once the mission has been developed?
A) The firm develops alternative or back-up missions in case the original mission fails.
B) The functional areas develop their functional area strategies.
C) The functional areas develop their supporting missions.
D) The ten OM decision areas are prioritized.
E) Operational tactics are developed.
Answer: C
Diff: 2
Objective: LO 2.1 Define mission and strategy

5) Which of the following statements about organizational missions is FALSE?
A) They reflect a company's purpose.
B) They indicate what a company intends to contribute to society.
C) They are formulated after strategies are known.
D) They define a company's reason for existence.
E) They provide guidance for functional area missions.
Answer: C
Diff: 2
Objective: LO 2.1 Define mission and strategy

6) The fundamental purpose of an organization's mission statement is to:
A) create a good human relations climate in the organization.
B) define the organization's purpose in society.
C) define the operational structure of the organization.
D) generate good public relations for the organization.
E) define the functional areas required by the organization.
Answer: B
Diff: 2
Objective: LO 2.1 Define mission and strategy

7) Which of the following statements is TRUE?
A) Corporate mission is shaped by functional strategies.
B) Corporate strategy is shaped by functional strategies.
C) Functional strategies are shaped by corporate strategy.
D) External conditions are shaped by corporate mission.
E) Functional area missions are merged to become the organizational mission.
Answer: C
Diff: 3
Objective: LO 2.1 Define mission and strategy
AACSB: Reflective thinking

8) According to the authors, which of the following strategic concepts allow firms to achieve their missions?
A) productivity, efficiency, and quality leadership
B) differentiation, cost leadership, and response
C) differentiation, quality leadership, and response
D) distinctive competency, cost leadership, and experience
E) differentiation, distinctive competency, quality leadership, and capacity
Answer: B
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) A *strategy* is a(n):
A) set of opportunities in the marketplace.
B) broad statement of purpose.
C) simulation used to test various product line options.
D) plan for cost reduction.
E) action plan to achieve the mission.
Answer: E
Diff: 2
Objective: LO 2.1 Define mission and strategy

10) The ________ is how an organization expects to achieve its missions and goals.
Answer: strategy
Diff: 2
Objective: LO 2.1 Define mission and strategy

11) What is the difference between a firm's mission and its strategy?
Answer: A firm's mission is the purpose or rationale for its existence; whereas, a firm's strategy is how it expects to achieve its mission and goals.
Diff: 2
Objective: LO 2.1 Define mission and strategy

12) Define the functional areas of a typical business.
Answer: Functional areas are the major disciplines required by the firm, such as marketing, finance/accounting, and production/operations.
Diff: 2
Objective: LO 2.1 Define mission and strategy

Section 3 Achieving Competitive Advantage Through Operations

1) Experience differentiation is an extension of product differentiation, accomplished by using people's five senses to create an experience rather than simply providing a service.
Answer: TRUE
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) Low-cost leadership is the ability to distinguish the offerings of the organization in a way that the customer perceives as adding value.
Answer: FALSE
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Which of the following is LEAST likely to be a low-cost leadership competitive advantage?
A) low overhead
B) effective capacity use
C) inventory management
D) broad product line
E) mass production
Answer: D
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) A firm can effectively use its operations function to yield competitive advantage through all of the following EXCEPT:
A) customization of the product.
B) setting equipment utilization goals below the industry average.
C) speed of delivery.
D) constant innovation of new products.
E) maintaining a variety of product options.
Answer: B
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) The ability of an organization to produce goods or services that have some uniqueness in their characteristics is:
A) mass production.
B) time-based competition.
C) competing on productivity.
D) competing on quality.
E) competing on differentiation.
Answer: E
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) Which of the following statements best characterizes delivery reliability?
A) a company that always delivers on the same day of the week
B) a company that always delivers at the promised time
C) a company that delivers more frequently than its competitors
D) a company that delivers faster than its competitors
E) a company that has a computerized delivery scheduling system
Answer: B
Diff: 3
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Which of the following is an example of competing on the basis of differentiation?
A) A firm manufactures its product with less raw material waste than its competitors do.
B) A firm's products are introduced into the market faster than its competitors' products are.
C) A firm's distribution network routinely delivers its product on time.
D) A firm offers a much broader product line than its competitors do.
E) A firm advertises more than its competitors do.
Answer: D
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) The ability of an organization to produce services that, by utilizing the consumer's five senses, have some uniqueness in their characteristics is:
A) sensory response.
B) time-based competition.
C) differentiation.
D) flexible response.
E) experience differentiation.
Answer: E
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Which of the following best describes *experience differentiation*?
A) immerses consumers in the delivery of a service
B) uses people's five senses to enhance the service
C) complements physical elements with visual and sound elements
D) consumers may become active participants in the product or service
E) All of the these are elements of experience differentiation.
Answer: E
Diff: 1
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) *Experience differentiation*:
A) isolates the consumer from the delivery of a service.
B) is an extension of product differentiation in the service sector.
C) uses only the consumer's senses of vision and sound.
D) keeps consumers from becoming active participants in the service.
E) attempts to make the service experience different for every single customer.
Answer: B
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Which of the following is the best example of competing on low-cost leadership?
A) A firm produces its product with less raw material waste than its competitors do.
B) A firm offers more reliable products than its competitors do.
C) A firm's products are introduced into the market faster than its competitors' products are.
D) A firm's research and development department generates many ideas for new products.
E) A firm advertises more than its competitors do.
Answer: A
Diff: 3
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) Franz Colruyt has achieved low-cost leadership through:
A) effective use of voice mail.
B) plastic, not paper, shopping bags.
C) background music that subtly encourages shoppers to buy more.
D) converting factories, garages, and theaters into retail outlets.
E) exclusive use of the Euro.
Answer: D
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) Which of the following is an example of competing on quick response?
A) A firm produces its product with less raw material waste than its competitors do.
B) A firm offers more reliable products than its competitors do.
C) A firm's products are introduced into the market faster than its competitors' products.
D) A firm utilizes its capacity more effectively than its competitors do.
E) A firm advertises more than its competitors do.
Answer: C
Diff: 3
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) Response-based competitive advantage can be:
A) flexible response.
B) reliable response.
C) quick response.
D) all of these.
E) none of the these.
Answer: D
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

15) Which of the following is NOT an example of competing on the basis of differentiation?
A) A car manufacturer offers the best warranty in the automobile industry.
B) A firm designs its smart phone product with unique features.
C) A movie theater distinguishes itself by offering cinema suites and dine-in options.
D) A firm offers a much broader product line than its competitors do.
E) A firm advertises more than its competitors do.
Answer: E
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

16) The creation of a unique advantage over competitors is called a(n) ________.
Answer: competitive advantage
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

17) Service organizations can immerse the consumer in the service, or have the consumer become a participant in the service, as they practice ________.
Answer: experience differentiation
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

18) Competitive advantage through operations can be achieved by ________, ________, and/or ________.
Answer: differentiation, low cost, response
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

19) Provide an example of an organization that achieves competitive advantage through experience differentiation. Explain.
Answer: Answers will vary, but Disney and Hard Rock Café are illustrated in the text. Competing on experience differentiation implies providing uniqueness to your service offering through immersion of the consumer into the service, with visual or sound elements to turn the service into an experience.
Diff: 2
Objective: LO 2.2 Identify and explain three strategic approaches to competitive advantage
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 4   Issues in Operations Strategy

1) A resources view is used to identify activities that represent strengths, or potential strengths, and may be opportunities for developing competitive advantage.
Answer: FALSE
Diff: 2

2) In the product life cycle, the best stage to increase market share is *maturity*.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Porter introduced the concept of value-chain analysis.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Before establishing and implementing strategy, a resources view would ensure that which of the following resources are available?
A) financial
B) physical
C) human
D) technological
E) all of these
Answer: E
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) Porter's Five Forces Model is used to evaluate competition based on which 5 aspects?
A) research and development, cost, legal regulations, suppliers, customers
B) immediate rivals, potential entrants, customers, suppliers, and substitute products
C) potential entrants, customers, suppliers, legal regulations, and cost
D) immediate rivals, potential entrants, cost, substitute products, and legal regulations
E) cost, legal regulations, advertising effectiveness, potential entrants, and immediate rivals
Answer: B
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) Porter's Five Forces Model contains which of the following?
A) immediate rivals
B) potential entrants
C) customers
D) suppliers
E) all of the these
Answer: E
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) Who introduced the concept of value-chain analysis?
A) Ford
B) Toyota
C) Porter
D) Smith
E) Gates
Answer: C
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Value-chain analysis can be used to determine if a business is adding unique value in which of the following areas?
A) product research
B) human resources
C) process innovation
D) quality management
E) all of these
Answer: E
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Which of the following is NOT part of value-chain analysis?
A) product research
B) quality management
C) supply chain management
D) project management
E) human resources
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

10) Which of the following environmental factors has not contributed to Microsoft's changing strategy?
A) Google
B) security issues
C) faster processors
D) the Internet
E) global warming
Answer: E
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

11) Standardization is an appropriate strategy in which stage of the product life cycle?
A) introduction
B) growth
C) maturity
D) decline
E) retirement
Answer: C
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

12) Cost minimization is an appropriate strategy in which stage of the product life cycle?
A) introduction
B) growth
C) adolescence
D) decline
E) retirement
Answer: D
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

13) Which of the following OM strategy/issues should a firm with a product in the maturity stage of its life cycle be LEAST concerned with at the present time?
A) increase capacity
B) long production runs
C) standardization
D) cost cutting
E) fewer rapid product changes
Answer: A
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

14) Given the position of the 3D printer in the growth stage of its life cycle, which of the following OM Strategy/Issues should the makers of 3D printers be least concerned with at the current time?
A) forecasting
B) cost cutting
C) increasing capacity
D) product and process reliability
E) enhancing distribution
Answer: B
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

15) Which of the following has progressed the FURTHEST along its product life cycle?
A) video physical rentals
B) Boeing 787
C) autonomous vehicles
D) virtual reality
E) Xbox One
Answer: A
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

16) Which of the following has made the LEAST progress along its product life cycle?
A) video physical rentals
B) Boeing 787
C) autonomous vehicles
D) virtual reality
E) Xbox One
Answer: C
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

17) ________ is the stage in the product life cycle at which it is a poor time to change quality.
Answer: Maturity
Diff: 2

18) Forecasting is especially critical at the ________ stage in the product life cycle.
Answer: Growth
Diff: 2
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 5   Strategy Development and Implementation

1) *Key success factors* and *core competencies* are synonyms.
Answer: FALSE
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

2) SWOT analysis is a method of determining external strengths and weaknesses and internal opportunities and threats.
Answer: FALSE
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

3) Key success factors are those activities that are key to achieving comparative advantage.
Answer: FALSE
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

4) Which of the following statements is most correct?
A) KSFs are often necessary, but not sufficient for competitive advantage.
B) KSFs are often sufficient, but not necessary for competitive advantage.
C) KSFs are neither necessary nor sufficient for competitive advantage.
D) KSFs are both necessary and sufficient for competitive advantage.
E) None of these statements are correct.
Answer: A
Diff: 3
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

5) A SWOT analysis determines:
A) internal strengths and weaknesses and internal opportunities and threats.
B) internal strengths and weaknesses and external opportunities and threats.
C) external strengths and weaknesses and internal opportunities and threats.
D) external strengths and weaknesses and external opportunities and threats.
E) internal strengths and opportunities and external weaknesses and threats.
Answer: B
Diff: 1
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

6) Define *core competencies.*
Answer: A set of skills, talents, and capabilities in which a firm is particularly strong.
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

7) What is SWOT analysis? List its four elements and describe its purpose.
Answer: The four elements of SWOT are strengths, weaknesses, opportunities, and threats. Its purpose is to maximize opportunities and minimize threats in the environment, while maximizing the advantages of the organization's strengths and minimizing the weaknesses.
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

8) Starbucks is one of the best-known coffeehouse chains in the world. Each store sells a variety of innovative products to complement the array of coffee choices available. However, nearly half of the current stores are located in the United States and the expensive nature of the coffee leaves Starbucks vulnerable to changes in consumer spending behavior (such as recessions). Starbucks has begun initiatives to sell its specialty coffee beans for home use, presenting a chance for a large increase in revenue and diversification. However, Starbucks faces fierce competition seeking a piece of its lucrative market share and the threat of consumer behavior changes, given its reputation rides on a singular product. Perform a SWOT analysis for Starbucks.
Answer: Strengths—High profit specialty coffee, well-known brand image, extensive global supply chain
Weaknesses—Many stores located in the United States, most profits come from coffee (both are lack of diversification), higher price points
Opportunities—Emerging market in coffee beans for home use, chance for global expansion, diversification of product mix
Threats—Intense competition, consumer behavior changes (less spending during a recession on its luxury coffee, change in beverage preferences)
Diff: 2
Objective: LO 2.3 Understand the significance of key success factors and core competencies
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

9) Perform a SWOT analysis of Boeing's 787 Dreamliner using the information presented in the text.
Answer: Strengths—Technological advances (8% increase in fuel efficiency, electronic maintenance monitoring)
Weaknesses—Diverse suppliers and assembly locations leave Boeing vulnerable to currency exchange rates and make quality control difficult
Opportunities—one of fastest-selling commercial jets ever gives Boeing a chance to increase market share, Boeing can parlay its use of diverse supplier locations into diversifying customer base
Threats—competition from Airbus, divestment of the manufacture process risks losing company trade secrets (competitive advantage)
Diff: 3
Objective: LO 2.3 Understand the significance of key success factors and core competencies
AACSB: Reflective thinking
Learning Outcome: Discuss operations and operations management as a competitive advantage for the organization

Section 6 Strategic Planning, Core Competencies, and Outsourcing

1) Outsourcing is the practice of transferring a firm's activities that have traditionally been internal to external suppliers.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

2) Outsourcing is the practice of moving a business process to a foreign country but retaining control of it.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

3) Core competencies are good candidates for outsourcing.
Answer: FALSE
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

4) The theory of *competitive* advantage implies that you should allow another firm to perform work activities for your company if that company can do it more productively than you can.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

5) The theory of *comparative* advantage implies that you should allow another firm to perform work activities for your company if that company can do it more productively than you can.
Answer: TRUE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

6) The term *renewal* has been created to describe the return of business activity to the originating country.
Answer: FALSE
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

7) What is the practice of transferring a firm's activities that have traditionally been internal to external suppliers?
A) nearshoring
B) farshoring
C) offshoring
D) outsourcing
E) backsourcing
Answer: D
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

8) Outsourcing is simply an extension of the long-standing practice of:
A) subcontracting.
B) importing.
C) exporting.
D) postponement.
E) e-procurement.
Answer: A
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

9) Outsourcing manufacturing is also known as:
A) license manufacturing.
B) sublease manufacturing.
C) concurrent manufacturing.
D) hollow manufacturing.
E) contract manufacturing.
Answer: E
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

10) What theory implies that you should allow another firm to perform work activities for your company if that company can do it more productively than you can?
A) theory of competitive advantage
B) theory of core competencies
C) theory of comparative advantage
D) theory of outsourcing
E) theory of offshoring
Answer: C
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

11) Which of the following statements is most accurate?
A) Nearly all outsourcing relationships do not last beyond two years.
B) Nearly all U.S. firms that outsourced processes to India have backsourced them.
C) Approximately half of all outsourcing agreements fail.
D) Outsourcing is a relatively risk-free activity.
E) More than 90% of outsourcing agreements succeed.
Answer: C
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

12) Which of the following is NOT an advantage of outsourcing?
A) cost savings
B) gaining outside expertise
C) improving operations and service
D) outsourcing core competencies
E) accessing outside technology
Answer: D
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

13) Advantages of outsourcing do NOT include:
A) cost savings.
B) gaining outside expertise.
C) maintaining a focus on core competencies.
D) accessing outside technology.
E) potential creation of future competition.
Answer: E
Diff: 1
Learning Outcome: Discuss the influences of the global competitive environment on operations management

14) An operations manager is performing a factor-rating analysis to help her choose an outsourcing provider. She is focusing on three factors: A, B, and C, with weights of .30, .20, and .50, respectively. She has scored one potential outsourcer, Ling Services, on each of the factors using a scale of 10-50. Ling Services received a score of 30 for factor A, 46 for factor B, and 22 for factor C. What is the factor-rating score for Ling Services?
A) 98.0
B) 32.7
C) 21.8
D) 29.2
E) 30.8
Answer: D
Diff: 2
Objective: LO 2.4 Use factor rating to evaluate both country and outsource providers
AACSB: Analytical thinking
Learning Outcome: Discuss the influences of the global competitive environment on operations management

15) An operations manager is performing a factor-rating analysis to help him choose an outsourcing provider. He is focusing on two factors: A and B, using a weight of 75% for factor A and 25% for factor B. He has scored five different potential providers on both factors, using a scale of 1-5, with 1 representing the BEST score. Based on the scores provided in the table below, which provider should be chosen?

Provider	Factor A	Factor B
Alpha	1	5
Beta	3	3
Gamma	4	1
Phi	-3	1
Omega	3	5

A) Alpha
B) Beta
C) Gamma
D) Phi
E) Omega
Answer: A
Diff: 2
Objective: LO 2.4 Use factor rating to evaluate both country and outsource providers
AACSB: Analytical thinking
Learning Outcome: Discuss the influences of the global competitive environment on operations management

16) ________ is the practice of transferring a firm's activities that have traditionally been internal to external suppliers.
Answer: Outsourcing
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

17) Outsourcing manufacturing is also known as ________.
Answer: contract manufacturing
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

18) Outsourcing is an extension of the long-standing practice of ________ production activities.
Answer: subcontracting
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

19) The theory of ________ implies that you should allow another firm to perform work activities for your company if that company can do it more productively than you can.
Answer: comparative advantage
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

20) The return of business activity to the originating country is known as ________.
Answer: reshoring
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

21) Identify three factors fueling the continuing growth of outsourcing.
Answer: (1) increased technological expertise, (2) more reliable and cheaper transportation, and (3) the rapid development and deployment of advancements in telecommunications and computers.
Diff: 3
Learning Outcome: Discuss the influences of the global competitive environment on operations management

22) Identify five main advantages of outsourcing.
Answer: (1) cost savings, (2) gaining outside expertise, (3) improving operations and service, (4) maintaining a focus on core competencies, and (5) accessing outside technology
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

23) Identify five main disadvantages of outsourcing.
Answer: (1) increased logistics and inventory costs, (2) loss of control (quality, delivery, etc.), (3) potential creation of future competition, (4) negative impact on employees, and (5) risks may not manifest themselves for years
Diff: 2
Learning Outcome: Discuss the influences of the global competitive environment on operations management

24) A company is choosing an outside firm to provide its payroll services. It has chosen four comparative categories of interest: client reviews, financial condition, IT capabilities, and government stability. These categories have been assigned weights of 20%, 10%, 40%, and 30%, respectively. Three potential providers were scored on each of those factors (see table below) using a scale of 1-10, with a score of 1 meaning worst possible and 10 meaning best possible. Using the factor-rating method, which provider should be chosen?

	Provider A	Provider B	Provider C
Client reviews	2	6	10
Financial condition	8	4	2
IT capabilities	5	8	2
Government stability	3	1	2

Answer: Provider A: 2(.2) + 8(.1) + 5(.4) + 3(.3) = 4.1
Provider B: 6(.2) + 4(.1) + 8(.4) + 1(.3) = 5.1
Provider C: 10(.2) + 2(.1) + 2(.4) + 2(.3) = 3.6
Since a high score implies best performance in this problem, Provider B should be chosen.
Diff: 2
Objective: LO 2.4 Use factor rating to evaluate both country and outsource providers
AACSB: Analytical thinking
Learning Outcome: Discuss the influences of the global competitive environment on operations management

25) A company is deciding between 2 foreign firms to provide its call center services. A factor-rating method is used. Factors are rated on a scale of 1-10, with 10 being the best score.
A: If the factors are weighted equally (respective weights of .3333), which firm is preferred?
B: Suppose a consultant recommended that Factor 2 be twice as important as Factor 1, while Factor 3 should be three times as important as Factor 2. Which firm is best now using a weighted method? (Round your weights to the nearest four decimal places.)

Firm	Factor 1	Factor 2	Factor 3
A	6	7	10
B	8	9	8

Answer: A: Firm A = 6(.3333) + 7(.3333) + 10(.3333) = 7.67, Firm B = 8(.3333) + 9(.3333) + 8(.3333) = 8.33, so Firm B is preferred
B: To find the new weights, let X = weight of Factor 1. Then 100% = X + 2X + 3(2X), or 1 = 9X, or X = .1111. Thus, Factor 1 has a weight of 11.11%, Factor 2 has a weight of 2(11.11%) = 22.22%, and Factor 3 has a weight of 3(22.22%) = 66.66%.
The scores are: Firm A = 6(.1111) + 7(.2222) + 10(.6666) = 8.88. Firm B = 8(.1111) + 9(.2222) + 8(.6666) = 8.22, so Firm A is preferred.
Diff: 2
Objective: LO 2.4 Use factor rating to evaluate both country and outsource providers
AACSB: Analytical thinking
Learning Outcome: Discuss the influences of the global competitive environment on operations management

Section 7 Global Operations Strategy Options

1) A multinational corporation is a firm with extensive international business involvement.
Answer: TRUE
Diff: 1
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

2) The multidomestic OM strategy maximizes local responsiveness while achieving a significant cost advantage.
Answer: FALSE
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

3) Firms using the global strategy can be thought of as "world companies."
Answer: FALSE
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

4) A global strategy uses exports and licenses to penetrate the global arena.
Answer: FALSE
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

5) Which of the international operations strategies involves high cost reductions and high local responsiveness?
A) international strategy
B) global strategy
C) transnational strategy
D) multidomestic strategy
E) worldwide strategy
Answer: C
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

6) Which of the international operations strategies involves low cost reductions and low local responsiveness?
A) international strategy
B) global strategy
C) transnational strategy
D) multidomestic strategy
E) worldwide strategy
Answer: A
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

7) Which of the international operations strategies uses import/export or licensing of existing products?
A) international strategy
B) global strategy
C) transnational strategy
D) multidomestic strategy
E) worldwide strategy
Answer: A
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

8) Which of the international operations strategies uses the existing domestic model globally?
A) international strategy
B) global strategy
C) transnational strategy
D) multidomestic strategy
E) worldwide strategy
Answer: D
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

9) The acronym **MNC** stands for
A) Mexican National Committee (for international trade)
B) Maquiladora Negates Competition
C) Maytag-Nestlé Corporation
D) Multinational Corporation
E) Maritime Navigation Company
Answer: D
Diff: 1
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

10) Caterpillar and Texas Instruments are two firms that have benefited from the use of:
A) the multidomestic strategy option.
B) the international strategy option.
C) the transnational strategy option.
D) the maquiladora system in Europe.
E) the global strategy option.
Answer: E
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

11) Coca Cola and Nestlé are two firms that have benefited from the use of:
A) the multidomestic strategy option.
B) the international strategy option.
C) the transnational strategy option.
D) the maquiladora system in Europe.
E) the global strategy option.
Answer: C
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

12) Which of the following is NOT an example of a global strategy?
A) Apple designs its iPhone identical, regardless of region.
B) IKEA sells standardized, Swedish designed, self-assembly furniture products.
C) Caterpillar provides the same earth-moving equipment in Nigeria as in Iowa.
D) Gillette introduces a new customized product with less design complexity for low-income Indian customers.
E) Procter & Gamble homogenizes products as much as the market allows in order to keep cost low.
Answer: D
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

13) Which of the following is NOT an example of a multidomestic strategy?
A) McDonald's stores in India do not sell sandwiches made of beef.
B) IKEA sells standardized, Swedish designed, self-assembly furniture products.
C) The restaurants in Disneyland Paris feature recipes revised for local tastes and increased outdoor seating.
D) Heinz takes over Honig (Holland) that makes local traditional delicacies.
E) Each Hard Rock Café restaurant is designed to reflect the culture and preferences of its location.
Answer: B
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

14) A(n) ________ is a firm that has extensive involvement in international business, owning or controlling facilities in more than one country.
Answer: multinational corporation (MNC)
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

15) The ________ strategy utilizes a standardized product across countries.
Answer: global
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

16) The ________ strategy uses exports and licenses to penetrate globally.
Answer: international
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

17) The ________ strategy uses subsidiaries, franchises, or joint ventures with substantial independence.
Answer: multidomestic
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

18) The ________ strategy describes a condition in which material, people, and ideas cross or transgress national boundaries.
Answer: transnational
Diff: 2
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management

19) Identify and explain the four basic global operations strategies. Give an example of each strategy.
Answer: The *multidomestic strategy* decentralizes operating decisions to each country to enhance local responsiveness. An example is Heinz. The *global strategy* centralizes operating decisions, with headquarters coordinating the standardization and learning between facilities. The textbook names Texas Instruments and Caterpillar. The *international strategy* uses exports and licenses to penetrate the global markets. Harley-Davidson is an example. The *transnational strategy* exploits the economies of scale and learning, as well as pressure for responsiveness, by recognizing that core competence does not reside in just the "home" country, but can exist anywhere in the organization. An example is Coca-Cola.
Diff: 3
Objective: LO 2.5 Identify and explain four global operations strategy options
Learning Outcome: Discuss the influences of the global competitive environment on operations management