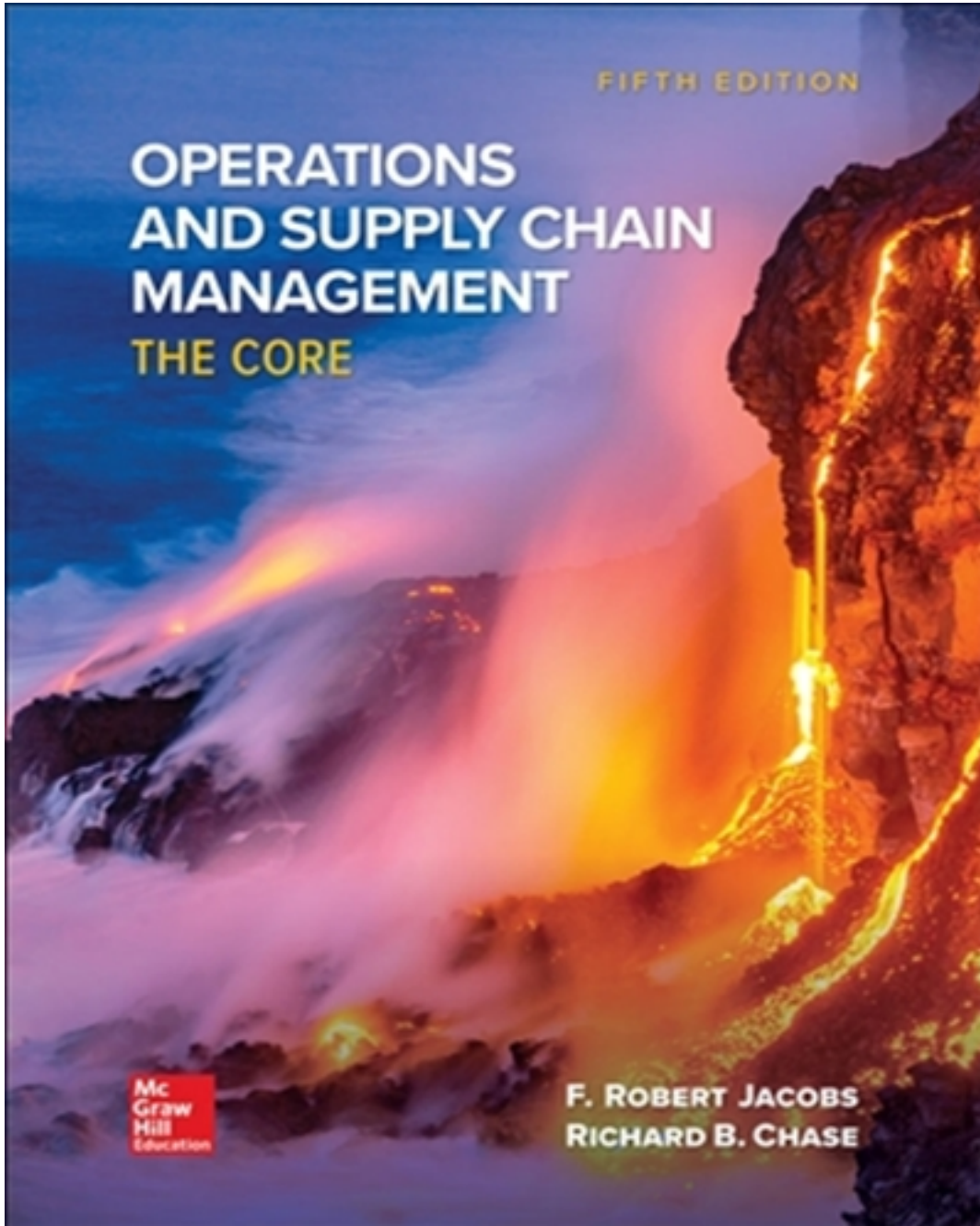


Test Bank for Operations and Supply Chain Management 5th Edition by Jacobs

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Test Bank

Operations and Supply Chain Management: The Core, 5e (Jacobs)
Chapter 2 Strategy and Sustainability

1) An operations and supply chain strategy must be integrated with the organization's corporate strategy.

Answer: TRUE

Explanation: Operations and supply chain strategy is concerned with setting broad policies and plans for using the resources of a firm and must be integrated with corporate strategy.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

2) One of the competitive dimensions that form the competitive position of a company when planning their strategies is cost.

Answer: TRUE

Explanation: The major competitive dimensions that form the competitive position of a firm include cost (or price).

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

3) One of the competitive dimensions that form the competitive position of a company when planning their strategies is delivery speed.

Answer: TRUE

Explanation: The major competitive dimensions that form the competitive position of a firm include delivery speed.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

4) One of the competitive dimensions that form the competitive position of a company when planning their strategies is making the best trade-off.

Answer: FALSE

Explanation: The major competitive dimensions that form the competitive position of a firm do not include making the best trade-off.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

5) The process when a company seeks to match the benefits of a successful position while maintaining its existing position by adding new features, services, and technologies into its current portfolio is called flexibility.

Answer: FALSE

Explanation: Straddling occurs when a company seeks to match the benefits of a successful position while maintaining its existing position.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

6) The process when a company seeks to match the benefits of a successful position while maintaining its existing position by adding new features, services, and technologies into its current portfolio it is called straddling.

Answer: TRUE

Explanation: Straddling occurs when a company seeks to match the benefits of a successful position while maintaining its existing position.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

7) By following a straddling strategy, firms can broaden their capabilities and effectively compete with more focused firms in markets requiring low cost for success.

Answer: FALSE

Explanation: Straddling is a risky strategy that often results in failure. More focused firms can effectively compete with a straddling firm in each segment the straddling firm enters.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

8) An order winner is a set of criterion that differentiates the products or services of one firm from another.

Answer: TRUE

Explanation: An order winner is a criterion that differentiates the products or services of one firm from those of another.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

9) An order winner is a set of screening criteria that permits a firm's products to be considered as possible candidates for purchase.

Answer: FALSE

Explanation: An order qualifier is a screening criterion that permits a firm's products to even be considered as possible candidates for purchase.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

10) An order qualifier is a screening criterion that permits a firm's products to even be considered as possible candidates for purchase.

Answer: TRUE

Explanation: An order qualifier is a screening criterion that permits a firm's products to even be considered as possible candidates for purchase.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

11) Activity-system maps show how a company's strategy is delivered through a set of tailored activities.

Answer: TRUE

Explanation: Activity-system maps such as the one for IKEA show how a company's strategy is delivered through a set of tailored activities.

Difficulty: 1 Easy

Topic: Strategies Are Implemented Using Operations and Supply Chain Activities— IKEA'S Strategy

Learning Objective: 02-03 Explain how operations and supply chain strategies are implemented.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

12) Activity-system maps are useful in understanding how well a system of activities fits the overall company's strategy.

Answer: TRUE

Explanation: This type of map can be useful in understanding how good the fit is between the system of activities and the company's strategy.

Difficulty: 1 Easy

Topic: Strategies Are Implemented Using Operations and Supply Chain Activities— IKEA'S Strategy

Learning Objective: 02-03 Explain how operations and supply chain strategies are implemented.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

13) Activity-system maps depict the geographic reach of a company's business strategies.

Answer: FALSE

Explanation: Activity system maps are conceptual have nothing to do with the physical geographic reach of a company.

Difficulty: 1 Easy

Topic: Strategies Are Implemented Using Operations and Supply Chain Activities— IKEA'S Strategy

Learning Objective: 02-03 Explain how operations and supply chain strategies are implemented.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

14) An operations strategy must resist change because of the long term nature of equipment and personnel investments.

Answer: FALSE

Explanation: Since the goals of the larger organization change over time, the operations strategy must be designed to anticipate future needs.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Understand

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

15) Operations and supply strategy can be viewed as part of a planning process that coordinates operational goals with those of the larger organization.

Answer: TRUE

Explanation: Operations and supply chain strategy can be viewed as part of a planning process that coordinates operational goals with those of the larger organization.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

16) Infrastructure decisions within operations strategy include the selection of the appropriate technology, the role of inventory, and the location of facilities.

Answer: FALSE

Explanation: Process design includes selecting the appropriate technology, sizing the process over time, determining the role of inventory in the process, and locating the process.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

17) Infrastructure decisions within operations strategy include the selection of the logic associated with the planning and control systems.

Answer: TRUE

Explanation: The infrastructure decisions involve the logic associated with the planning and control systems, quality assurance and control approaches, work payment structure, and organization of the operations and supply functions.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

18) Once an operations strategy is adopted and articulated, the primary emphasis becomes perfecting the system of activities that make up the strategy through detailed refinements over a long period of time.

Answer: FALSE

Explanation: A firm's operations capabilities can be viewed as a portfolio best suited to adapting to the changing product and/or service needs of a firm's customers.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

19) The job of operations and supply chain strategy is to deliver the most feature-rich, highest quality product at the lowest price within specified parameters of delivery time and customization.

Answer: FALSE

Explanation: Operations and supply chain strategy is concerned with setting broad policies and plans for using the resources of a firm and must be integrated with corporate strategy.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

20) Productivity is a relative measure.

Answer: TRUE

Explanation: Productivity is what we call a relative measure. In other words, to be meaningful, it needs to be compared with something else.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

21) In a partial measure of productivity the denominator of the ratio would include all resources used or all inputs.

Answer: FALSE

Explanation: In a partial measure of productivity the denominator includes only a single input.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

22) In a multifactor measure of productivity the numerator of the ratio would include all resources used or all inputs.

Answer: FALSE

Explanation: In a multi-factor measure of productivity the denominator includes several but not all inputs.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

23) The triple bottom line considers evaluating the firm against social, economic, and environmental criteria.

Answer: TRUE

Explanation: The triple bottom line considers evaluating the firm against social, economic, and environmental criteria.

Difficulty: 1 Easy

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

24) Sustainability means meeting a firm's current needs without excessively compromising the ability of future generations to meet their own needs.

Answer: FALSE

Explanation: By adding "sustainability" to the concept (of strategy), we add the requirement to meet these current needs without compromising the ability of future generations to meet their own needs. (Excessively is not mentioned.)

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

25) The social impact of the triple bottom line concept pertains to fair and beneficial business practices toward labor, the community, and the region in which a firm conducts its business.

Answer: TRUE

Explanation: "Social" pertains to fair and beneficial business practices toward labor, the community, and the region in which a firm conducts its business.

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

26) A firm's business practices toward its labor force pertain mainly to the economic aspect of the triple bottom line concept.

Answer: FALSE

Explanation: "Social" pertains to fair and beneficial business practices toward labor, the community, and the region in which a firm conducts its business.

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

27) According to the economic aspect of the triple bottom line concept, the firm is required to compensate shareholders by paying dividends and growing the value of their common stock faster than their competitors.

Answer: FALSE

Explanation: The firm is obligated to compensate shareholders who provide capital through stock purchases and other financial instruments via a competitive return on investment.

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

28) Within a sustainability framework, the economic dimension of the triple bottom line concept goes beyond just profit for the firm but also provides lasting economic benefit to society.

Answer: TRUE

Explanation: Within a sustainability framework, this (economic) dimension goes beyond just profit for the firm but also provides lasting economic benefit to society.

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

29) Within a sustainability framework, the environmental dimension of the triple bottom line concept has to do with labor, the community, and the region in which a firm conducts its business.

Answer: FALSE

Explanation: "Social" pertains to fair and beneficial business practices toward labor, the community, and the region in which a firm conducts its business.

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

30) Which of the following is not a major strategic operational competitive dimension that forms a company's competitive position?

A) Cost or price

B) Delivery speed

C) Delivery reliability

D) Management acumen

E) Coping with changes in demand

Answer: D

Explanation: The operational competitive dimensions that form a company's competitive position are listed in the text. Management acumen is not mentioned.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

31) A major competitive dimension that forms a company's strategic operational competitive position in their strategic planning is which of the following?

- A) Cost or price
- B) Focus
- C) Automation
- D) Straddling
- E) Activity-system mapping

Answer: A

Explanation: Cost or price is one of the competitive dimensions mentioned in the text.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

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32) When developing an operations and supply chain strategy, which of the following is an important product-specific criterion to consider?

- A) Technical liaison
- B) Learning curve
- C) Competitor's product performance
- D) Production lot-size
- E) Total quality management

Answer: A

Explanation: Technical liaison and support. A supplier may be expected to provide technical assistance for product development, particularly during the early stages of design and manufacturing.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

33) In development of an operations and supply chain strategy, which of the following may be an important product-specific criteria to consider?

- A) Focus
- B) Production lot-size
- C) Supplier after-sale support
- D) Learning curve
- E) Total quality management

Answer: C

Explanation: An important competitive dimension may be the ability of a firm to support its product after the sale

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

34) When a company seeks to match the benefits of a successful position while maintaining its existing position in offering customers a variety of differing services, what is this process called?

- A) Operations capability analysis
- B) Straddling
- C) Order qualifying
- D) Order winning
- E) Inter-functional analysis

Answer: B

Explanation: Straddling occurs when a company seeks to match the benefits of a successful position while maintaining its existing position.

Difficulty: 1 Easy

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

35) An activity-system map is which of the following?

- A) A network guide to route airlines
- B) A listing of activities that make up a project
- C) A diagram that shows how a company's strategy is delivered to customers
- D) A facility layout schematic noting what is done where
- E) A timeline displaying major planned events

Answer: C

Explanation: Activity-system maps show how a company's strategy is delivered through a set of tailored activities.

Difficulty: 1 Easy

Topic: Strategies Are Implemented Using Operations and Supply Chain Activities— IKEA'S Strategy

Learning Objective: 02-03 Explain how operations and supply chain strategies are implemented.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

36) Which of the following is a partial measure of productivity?

- A. Output / Materials
- B. Output / (Labor + Capital + Energy)
- C. Output / All resources used
- D. Output / Inputs

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) All of these

Answer: A

Explanation: Answer A is correct. Answer B is a multifactor measure of productivity while C & D are measures of total productivity.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

37) Which of the following is a multifactor measure of productivity?

- A. Output / (Materials)
- B. Output / (Labor + Capital + Energy)
- C. Output / All resources used
- D. Output / Inputs

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) All of these

Answer: B

Explanation: Answer B is correct. Answer A is a partial measure of productivity while C & D are measures of total productivity.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

38) Which of the following is a total measure of productivity?

- A. Output / Materials
- B. Output / (Labor + Capital + Energy)
- C. Output / Labor
- D. Output / Inputs

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) All of these

Answer: D

Explanation: Answer D is correct. Answer A is a partial measure of productivity, Answer B is a multifactor measure of productivity while C is a measure of total productivity.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

39) If all you knew about a production system was that total daily output was 400 units and the total labor necessary to produce the 400 units was 350 hours, what kind of productivity measure could you use to compute productivity?

- A. Partial measure
- B. Multifactor measure
- C. Total measure
- D. Global measure

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) All of these

Answer: A

Explanation: Answer A is correct. Without measures of other inputs only a partial output measure is possible.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

40) If all you knew about a production system was that total daily output was 400 units and the total labor necessary to produce the 400 units was 350 hours, and the total materials used were 425 units, what kind of productivity measure could you use to compute productivity?

- A. Partial measure
- B. Multifactor measure
- C. Total measure

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice A and B above
- E) Choice B and C above

Answer: D

Explanation: Answer D is the most correct of the answers. You could use either a partial or a multifactor measure or both kinds of measure.

Difficulty: 1 Easy

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

41) The total output from a production system in one day is 500 units and the total labor necessary to produce the 500 units is 350 hours. Using the appropriate productivity measure, which of the following numbers represents the resulting productivity ratio?

- A) 1.000
- B) 1.428
- C) 0.700
- D) 0.411
- E) None of these

Answer: B

Explanation: $500 \text{ units} \div 350 \text{ hours} = 1.428$.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

42) The total output from a production system in one day is 900 units and the total labor necessary to produce the 900 units is 900 hours. Using the appropriate productivity measure, what is the resulting productivity ratio?

- A) 1.000
- B) 1.428
- C) 0.700
- D) 0.411
- E) None of these

Answer: A

Explanation: Answer A is 900 units divided by 900 hours equals 1.0 units per hour.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

43) Larry's Auto Body Repair Shop had revenues that averaged \$60,000 per week in April and \$50,000 per week in May. During both months, the shop employed six full-time (40 hours/week) workers. In April the firm also had four part-time workers working 25 hours per week but in May there were only two part-time workers and they only worked 10 hours per week. What is the percentage change in labor productivity from April to May for Larry's Auto Body Repair?

- A) -20.00%
- B) -15.82%
- C) 8.95%
- D) 2.3%
- E) -25.00%
- F) None of these

Answer: C

Explanation: Labor productivity is output (revenue) divided by hours of labor input. For April, revenue was \$60,000 and labor hours were $4 \times [(40 \times 6) + (25 \times 4)]$. This is $60,000/1,360$ or 44.12 dollars per hour of labor. For May, revenue was \$50,000 and labor hours were $4 \times [(40 \times 6) + (10 \times 2)]$. This is $50,000/1,040$ or 48.07 dollars per hour of labor a difference of \$3.95 per hour. The percentage change in productivity between April and May, then, is $3.95/44.12 = 0.0895 \times 100 = 8.95\%$. (Note: this analysis assumes four weeks in each month and equal productivity for each hour worked.)

Difficulty: 3 Hard

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

44) Various financial data for SunPath Manufacturing for 2015 and 2016 follow.

| | | 2015 | 2016 |
|---------|-------------------|------------|------------|
| Output: | Sales | \$ 300,000 | \$ 330,000 |
| Inputs: | Labor | \$ 40,000 | \$ 43,000 |
| | Raw Materials: | \$ 45,000 | \$ 51,000 |
| | Energy: | \$ 10,000 | \$ 9,000 |
| | Capital Employed: | \$ 250,000 | \$ 262,000 |
| | Other: | \$ 2,000 | \$ 6,000 |

What is the percentage change in SunPath's total productivity measure between 2015 and 2016?

- A) - 9.22
- B) 2.33
- C) - 0.53
- D) 2.88
- E) 10.39
- F) None of these

Answer: D

Explanation: Total productivity for 2015 is \$300,000 divided by the sum \$40,000 + \$45,000 + \$10,000 + \$250,000 + \$2,000 or 0.8646. Total productivity for 2016 is \$330,000 divided by the sum of \$43,000 + \$51,000 + \$9,000 + 262,000 + \$6,000 or 0.8895. The difference between 2015 and 2016 is 0.0249 and the percentage difference is 0.0249 divided by 0.8646 = 0.0288 or 2.88%

Difficulty: 3 Hard

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

45) Various financial data for SunPath Manufacturing for 2015 and 2016 follow.

| | | 2015 | 2016 |
|---------|-------------------|------------|------------|
| Output: | Sales | \$ 300,000 | \$ 330,000 |
| Inputs: | Labor | \$ 40,000 | \$ 43,000 |
| | Raw Materials: | \$ 45,000 | \$ 51,000 |
| | Energy: | \$ 10,000 | \$ 9,000 |
| | Capital Employed: | \$ 250,000 | \$ 262,000 |
| | Other: | \$ 2,000 | \$ 6,000 |

What is the percentage change in the energy partial productivity measure for SunPath between 2015 and 2016?

- A) – 9.22%
- B) 2.33%
- C) – 0.53%
- D) 2.88%
- E) 22.2%
- F) None of these

Answer: E

Explanation: The energy partial productivity measure for 2015 is \$300,000 divided by \$10,000 or 30. For 2016 it is \$330,000 divided by \$9,000 or 36.66. The percentage change between 2015 and 2016 then is $(36.66 - 30)/30$ or 6.66 divided by 30 = 22.2%.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

46) Various financial data for SunPath Manufacturing for 2015 and 2016 follow.

| | | 2015 | 2016 |
|---------|-------------------|------------|------------|
| Output: | Sales | \$ 300,000 | \$ 330,000 |
| Inputs: | Labor | \$ 40,000 | \$ 43,000 |
| | Raw Materials: | \$ 45,000 | \$ 51,000 |
| | Energy: | \$ 10,000 | \$ 9,000 |
| | Capital Employed: | \$ 250,000 | \$ 262,000 |
| | Other: | \$ 2,000 | \$ 6,000 |

What is the percentage change in the labor partial productivity measure for SunPath between 2015 and 2016?

- A) – 9.22
- B) 2.33
- C) – 0.53
- D) 2.88
- E) 10.39
- F) None of these

Answer: B

Explanation: The labor partial productivity measure for 2015 is \$300,000 divided by \$40,000 or 7.5. For 2016 it is \$330,000 divided by \$43,000 or 7.67. The percentage change between 2015 and 2016, then, is $(7.67 - 7.5)/7.5$ or 0.17 divided by 7.5 = 2.33%.

Difficulty: 2 Medium

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

47) Various financial data for SunPath Manufacturing for 2015 and 2016 follow.

| | | 2015 | 2016 |
|---------|-------------------|------------|------------|
| Output: | Sales | \$ 300,000 | \$ 330,000 |
| Inputs: | Labor | \$ 40,000 | \$ 43,000 |
| | Raw Materials: | \$ 45,000 | \$ 51,000 |
| | Energy: | \$ 10,000 | \$ 9,000 |
| | Capital Employed: | \$ 250,000 | \$ 262,000 |
| | Other: | \$ 2,000 | \$ 6,000 |

What is the percentage change in the multifactor labor and raw materials productivity measure for SunPath between 2015 and 2016?

- A) – 9.22
- B) 2.33
- C) – 0.53
- D) – 2.88
- E) 10.39
- F) None of these

Answer: C

Explanation: The multifactor labor and raw materials productivity measure for 2015 is \$300,000 divided by the sum \$40,000 + \$45,000 or 3.53. For 2016 it is \$330,000 divided by the sum \$51,000 + \$43,000 or 3.51. . The percentage change between 2015 and 2016, then is $(3.511 - 3.529)/3.529$ or -0.018 divided by $3.529 = -0.53\%$.

Difficulty: 3 Hard

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Analyze

AACSB: Analytical Thinking

Accessibility: Keyboard Navigation

48) What is meant by the term "operations effectiveness?"

- A) Products produced in sufficient volume to meet demand
- B) Products produced at the lowest price in the industry
- C) Operations that run without error and with no surprises for top management
- D) Operations that can adapt quickly and efficiently to new and evolving conditions
- E) Performing activities in a manner that best implements strategic priorities at minimum cost

Answer: E

Explanation: Operations effectiveness is performing activities in a manner that best implements strategic priorities at minimum cost

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

49) Decisions that relate to the design of the processes and the infrastructure needed to support these processes relate to which OSCM concept?

- A) Sustainability
- B) Competitive dimensions of OSCM
- C) Making trade-offs
- D) integrating operations and supply chain strategy with a firm's operational capabilities
- E) Supply chain risk

Answer: D

Explanation: Integrating operations and supply chain strategy with a firm's operations capabilities involves decisions that relate to the design of the processes and infrastructure needed to support these processes.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

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50) Triple bottom line is a phrase that captures

- A. The concept that shareholders like economic, environmental and societal stewardship affecting shareholders and stake holders.
- B. The concept that firms should consider economic prosperity, environmental stewardship and social responsibility affecting shareholders and stake holders.
- C. The concept that sustainability, social awareness and profitability are three important measures for a firm affecting shareholders and stake holders.
- D. The concept that firms should consider economic prosperity, environmental stewardship and social responsibility affecting only shareholders.

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) None of the above

Answer: B

Explanation: B is the answer. Key is that it should take care of three objectives as well as shareholders and stakeholders. (Ex 2.1).

Difficulty: 2 Medium

Topic: A Sustainable Operations and Supply Chain Strategy

Learning Objective: 02-01 Know what a sustainable business strategy is and how it relates to operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

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51) Which of the following list contains only competitive dimensions of a firm discussed in the text?

- A. Cost or price, Triple bottom line, order winners
- B. Delivery speed, delivery reliability, order qualifiers
- C. Cost or price, delivery speed, delivery reliability, new product design
- D. Cost or price, delivery speed, delivery reliability, flexibility and new product introduction speed
- E. Triple bottom line, delivery speed, deliver reliability, supplier after sale support

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) Choice E

Answer: D

Explanation: Even though other answers contain some of the dimensions, they have other extraneous items. D has only dimensions discussed in the book. It is not exhaustive.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

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52) Choose the most accurate description in the context of operations and supply chain from the following list.

- A. Order winners and order qualifiers are two ways of describing market oriented dimensions of a product.
- B. Order winners differentiates a product or service from another while order qualifiers are built in features.
- C. Order winners are built in features and order qualifiers are necessary features.
- D. Order qualifier is a screening criteria while order winner is a differentiating criteria.
- E. Order winners may have been order qualifiers before.

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) Choice E

Answer: D

Explanation: D is the most complete answer.

Difficulty: 2 Medium

Topic: What is Operations and Supply Chain Strategy?

Learning Objective: 02-02 Define operations and supply chain strategy.

Bloom's: Remember

AACSB: Reflective Thinking

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53) In a firm, if the employees attend a training program, then the time to assemble one unit reduces by 10%. Training program will

- A. increase the labor productivity only
- B. increase the multifactor productivity only
- C. increase both labor and multifactor productivity
- D. decrease capital productivity
- E. have no effect on productivity.

- A) Choice A
- B) Choice B
- C) Choice C
- D) Choice D
- E) Choice E

Answer: C

Explanation: Labor productivity will increase since it takes less labor. Since labor is one of the components of multifactor productivity, it will also increase. Clearly, it cannot decrease capital productivity. And E is also wrong.

Difficulty: 3 Hard

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation

- 54) In a firm, all other things remaining the same, if the material usage per unit of final product decreases to half of the current usage, then the firm will
- A) double the material productivity
 - B) increase the multifactor productivity
 - C) double the material productivity and increase the multifactor productivity
 - D) decrease capital productivity
 - E) have no effect on productivity.

Answer: C

Explanation: Labor productivity will not change. Material productivity doubles, since the denominator is halved. Has no effect on capital productivity. Affects overall productivity.

Difficulty: 3 Hard

Topic: Productivity Measurement

Learning Objective: 02-05 Evaluate productivity in operations and supply chain management.

Bloom's: Remember

AACSB: Reflective Thinking

Accessibility: Keyboard Navigation