Test Bank for Principles of Supply Chain Management 5th Wisner

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

Chapter 2—Purchasing Management

TRUE/FALSE

1. Purchasing can be broadly classified into two categories: merchants and industrial buyers.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-1 Bloom's: Knowledge Difficulty: Easy

2. Merchants primary task is to purchase raw materials for conversion purposes.

   ANS: F PTS: 1
   BUSPROG: Analytic LO: 2-1 Bloom's: Knowledge Difficulty: Easy

3. A low ROA suggests that management is capable of generating large profits with relativiely small investments.

   ANS: F PTS: 1
   BUSPROG: Analytic LO: 2-1 Bloom's: Comprehension Difficulty: Easy

4. The procedures for public procurement differ from the private sector.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Comprehension Difficulty: Easy

5. Cost savings is an advantage of using an e-procurement system.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

6. The goal of a good purchasing system is to ensure efficient information transitions between the materials users, the purchasing personnel, and the suppliers.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

7. The purchase order is *NOT* a legally binding contract until it is accepted by the supplier.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

8. A material requisition and a purchase requisition are the same thing.

   ANS: T PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

9. A follow-up is considered a reactive approach to speed up an overdue shipment.

   ANS: F PTS: 1
   BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

10. Procurement credit cards can be used for small purchases including meals, lodging, and travel expenses.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-3 Bloom's: Knowledge Difficulty: Easy

12. Blank check purchase orders, Corporate purchasing cards, Petty cash, and Open-end purchase orders are all possible alternatives to dealing with small value purchases such as those for office supplies.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-3 Bloom's: Knowledge Difficulty: Easy

13. Generally, firms outsource noncore activities while focusing on core competencies.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Comprehension Difficulty: Easy

14. If the break-even point in a typical make-buy scenario is 19,000 units and 10,000 units are required by the firm, then the firm should choose to make the units.

ANS: F PTS: 1
BUSPROG: Reflective Thinking LO: 2-4 Bloom's: Analysis Difficulty: Easy

15. A reason for making items instead of buying them would include better quality control.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Comprehension Difficulty: Easy

16. The Total Cost of Ownership Concept does *NOT* include quantitative factors.

ANS: F PTS: 1
BUSPROG: Analytic LO: 2-5 Bloom's: Analysis Difficulty: Easy

17. The total cost analysis demonstrates how other costs besides the unit cost can affect purchase decisions.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-5 Bloom's: Knowledge Difficulty: Easy

18. The possibility of events like strikes, assembly line breakdowns, and natural disasters are all reasons a company should favor using a single supplier.

ANS: F PTS: 1
BUSPROG: Analytic LO: 2-6 Bloom's: Knowledge Difficulty: Easy

19. Decentralized purchasing is the practice where individual, local purchasing departments throughout a single corporation make their own, individual purchasing decisions to fulfill their individual local needs.

ANS: T PTS: 1
BUSPROG: Analytic LO: 2-7 Bloom's: Comprehension Difficulty: Easy

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

19. NAFTA and the WTO are trade organizations seeking to reduce tariff and non-tariff barriers among its member countries.

ANS: T PTS: 1
BUSPROG: Diversity LO: 2-8 Bloom's: Comprehension Difficulty: Easy

20. Foreign suppliers located farther away may be able to deliver goods faster than domestic suppliers due to more efficient transportation and logistical systems.

ANS: T PTS: 1
BUSPROG: Diversity LO: 2-8 Bloom's: Comprehension Difficulty: Easy

MULTIPLE CHOICE

1. The primary goals of purchasing include all EXCEPT:
   a. Secure materials at the lowest cost
   b. Maximize customer satisfaction
   c. Improve the quality of finished goods produced
   d. Ensure the highest quality raw materials are purchased

ANS: D PTS: 1
BUSPROG: Analytic LO: 2-1 Bloom's: Knowledge Difficulty: Easy

2. Which of the following refers to the measurement of the impact of change in purchase spend on a firm's profit before taxes, assuming gross sales and other expenses remain unchanged?
   a. Break-Even Analysis
   b. Profit-Leverage Effect
   c. Direct Offset
   d. Leveraging Purchase Volume

ANS: B PTS: 1
BUSPROG: Analytic LO: 2-1 Bloom's: Knowledge Difficulty: Easy

3. When calculating Return on Investment, current assets include:
   a. Cash, Accounts Receivable, and Inventory
   b. Cash, Accounts Receivable, and Equipment
   c. Accounts Receivable, Equipment, and Real Estate
   d. Equipment, Buildings, and Real Estate

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-1 Bloom's: Comprehension Difficulty: Easy

4. Inventory Turnover can be calculated by:
   a. Ratio of cost of goods sold over average inventory cost
   b. Ratio of average inventory cost over cost of goods sold
   c. Ratio of inventory days in stock over average inventory cost
   d. Ratio of average inventory cost over inventory days in stock

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-1 Bloom's: Knowledge Difficulty: Easy

5. Which type of requisition is used for materials and standard parts that are requested on a recurring basis?
   a. Open requisition

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

b. Blanket requisition
c. Traveling requisition
d. Recyclable requisition (Cyc-Rec)

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

6. A form of purchasing that is placed directly to the supplier and suitable when firms use the same components to make standard goods over a relatively long period of time is referred to as:
a. Material requisition
b. Purchase requisition
c. Planned order release
d. Traveling requisition

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

7. When a product is purchased which is complicated or highly technical a _____may be issued instead of a request for quotation.
a. Request for proposal
b. Purchase order
c. Contract for sale
d. Sales order

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

8. Benefits derived from implementing e-procurement systems include all of the following EXCEPT:
a. Allows buyers to submit bids and suppliers to respond to those bids in real time
b. Increases the accuracy in communication between buyers and suppliers
c. Creates numerous additional job opportunities in the purchasing department
d. Tracking bids and transactions is easier and faster

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-2 Bloom's: Comprehension Difficulty: Easy

9. While most public procurement is focused on goals like those of purchasing departments in the private sector, U.S. federal government purchases must comply with the:
a. Services and Materials Acquisition Act
b. Fair Standards and Equitable Purchases Act
c. Federal Code of Conduct for Procurement
d. Federal Acquisition Regulation

ANS: D PTS: 1
BUSPROG: Analytic LO: 2-2 Bloom's: Knowledge Difficulty: Easy

10. Petty cash is being phased out in favor of:
a. Hard cash
b. A blank check
c. P-card
d. Score-carding

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-3 Bloom's: Knowledge Difficulty: Easy

11. Blanket or open-end purchase orders are suitable for buying

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

a. Computers
b. Heavy equipment
c. Custom built components
d. Office supplies

ANS: D PTS: 1
BUSPROG: Analytic LO: 2-3 Bloom's: Knowledge Difficulty: Easy

12. Which of the following is a reason small value purchases are handled differently?
a. To give the buyer additional supplier choices
b. To obtain a higher quality product
c. To have better tracking of material usage
d. To control unnecessary administrative costs

ANS: D PTS: 1
BUSPROG: Analytic LO: 2-3 Bloom's: Comprehension Difficulty: Easy

13. Which of the following illustrates Forward Vertical Integration?
a. Microsoft starting a new division that designs and manufactures clothing
b. Ford automotive buying additional machines for production
c. Subway sandwich company buying a bakery to make the bread for their sandwiches.
d. Sony buying trucks to deliver their finished goods inventories to their customers' warehouses

ANS: D PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Comprehension Difficulty: Easy

14. Which of the following would be a good reason to outsource (buy) versus making?
a. To utilize existing capacity within a company's own firm
b. A firm lacks the technology or expertise to produce an item
c. To have more direct control over the design and production of an end item
d. No competent supplier presently produces the needed item

ANS: B PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Knowledge Difficulty: Easy

15. Given the following make-buy information, what would be the break-even point?

	Make Option	**Buy Option**
Fixed Costs	$5500	$1500
Variable Costs	$ 4	$ 9

a. 1200 units
b. 1708 units
c. 800 units
d. 460 units

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Application Difficulty: Moderate

16. Given the following make-buy information, what would be the break-even point?

	Make Option	**Buy Option**
Fixed Costs	$16000	$1400
Variable Costs	$ 6	$ 10

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

a. 9170 units
b. 3650 units
c. 1040 units
d. 2750 units

ANS: B PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Application Difficulty: Moderate

17. As firms seek to improve the products they offer to the market, companies are seeking help from their suppliers in new product design and development through:
a. Supplier certification programs
b. Manufacturer certification programs
c. Early supplier involvement
d. Total Cost of Ownership initiatives

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-4 Bloom's: Knowledge Difficulty: Easy

18. Firms can use total cost analysis to:
a. See how efficiently management is using its total assets to generate profits
b. Select the most cost-effective supplier
c. Show how many times a firm's inventory is utilized and replaced over an accounting period
d. Brainstorm and isolate the causes of a problem

ANS: B PTS: 1
BUSPROG: Analytic LO: 2-5 Bloom's: Comprehension Difficulty: Easy

19. Total Cost of Ownership does *NOT* consider which of the following factors?
a. Purchase order costs
b. Freight costs
c. Payment terms
d. Tooling costs

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-5 Bloom's: Comprehension Difficulty: Easy

20. The total cost of ownership for Supplier A is $2,670,000. The total cost of ownership for Supplier B is $1,750,000. The total cost of ownership for Supplier C is $2,990,000. Using Total Cost Analysis, it will be more cost-effective to use
a. Supplier A
b. Supplier B
c. Supplier C
d. Cannot be determined

ANS: B PTS: 1
BUSPROG: Analytic LO: 2-5 Bloom's: Comprehension Difficulty: Easy

21. Which of the following is a reason for favoring single sourcing?
a. Encourages competition among suppliers
b. Spreads the risk of supply interruption
c. Reduces variabilities in quality levels
d. Reduces information about new processing technologies

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-6 Bloom's: Knowledge Difficulty: Easy

22. Which of the following is a reason that single sourcing is considered risky/bad?
    a. There could be supplier interruptions due to political instability
    b. It could establish close relationships with the supplier
    c. Larger orders make quantity discounts more likely
    d. Decreases the item to item quality variability of items purchased

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-6 Bloom's: Comprehension Difficulty: Easy

23. Which of the following is an advantage of a centralized purchasing department?
    a. Less bureaucracy
    b. More frequent shipments
    c. Specialization
    d. Closer contact between buyer and user

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-7 Bloom's: Knowledge Difficulty: Easy

24. Which of the following statements is FALSE?
    a. Centralized purchasing is where individual, local purchasing departments, such as at the plant level, make their own purchasing decisions.
    b. Electronic procurement systems can aid a company in saving both time and money.
    c. More than 50% of each sales dollar typically goes towards covering supply chain costs.
    d. If a firm lacks the technology to make a required component they will need to consider buying/outsourcing.

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-7 Bloom's: Bloom's: Comprehension Difficulty: Easy

25. Which of the following is *NOT* a potential challenge for global sourcing?
    a. Long delivery lead times
    b. Costs involved in selecting foreign suppliers
    c. Relaxed trade barriers
    d. Labor and legal problems

ANS: C PTS: 1
BUSPROG: Analytic LO: 2-8 Bloom's: Comprehension Difficulty: Easy

26. Which of the following is NOT a form of countertrade?
    a. Barter
    b. Kaizen blitz
    c. Offset
    d. Counterpurchase

ANS: B PTS: 1
BUSPROG: Diversity LO: 2-8 Bloom's: Knowledge Difficulty: Easy

27. Which of the following NOT a reason firms are expanding their supply bases to include foreign suppliers?
    a. Lower shipping rates due to lower tariffs
    b. Lower product cost
    c. Better product quality

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

d. Overseas supplier holding the patent to the product

ANS: A PTS: 1
BUSPROG: Analytic LO: 2-8 Bloom's: Comprehension Difficulty: Easy

SHORT ANSWER

1. When using the Total Cost of Ownership concept, explain how a supplier with a higher unit price and higher tooling cost can end up being more cost effective than another supplier with a lower unit price and tooling cost.

   ANS:
   When calculating the Total Cost of Ownership, unit price and tooling cost are not the only criterion used in supplier selection. Other qualitative and quantitative factors, including freight and inventory costs, tariffs and duties, currency exchange fees, payment terms, maintenance and nonperformance costs should be considered. After calculating these other factors, the Total Cost of Ownership may have been lower with the second supplier.

   PTS: 5
   BUSPROG: Communication LO: 2-5 Bloom's: Application Difficulty: Moderate

2. Use what you understand about the outsourcing decision (Make vs. Buy) to answer this question. List and explain three reasons a restaurant might decide to buy pre-made desserts from a supplier rather than making the goods from scratch.

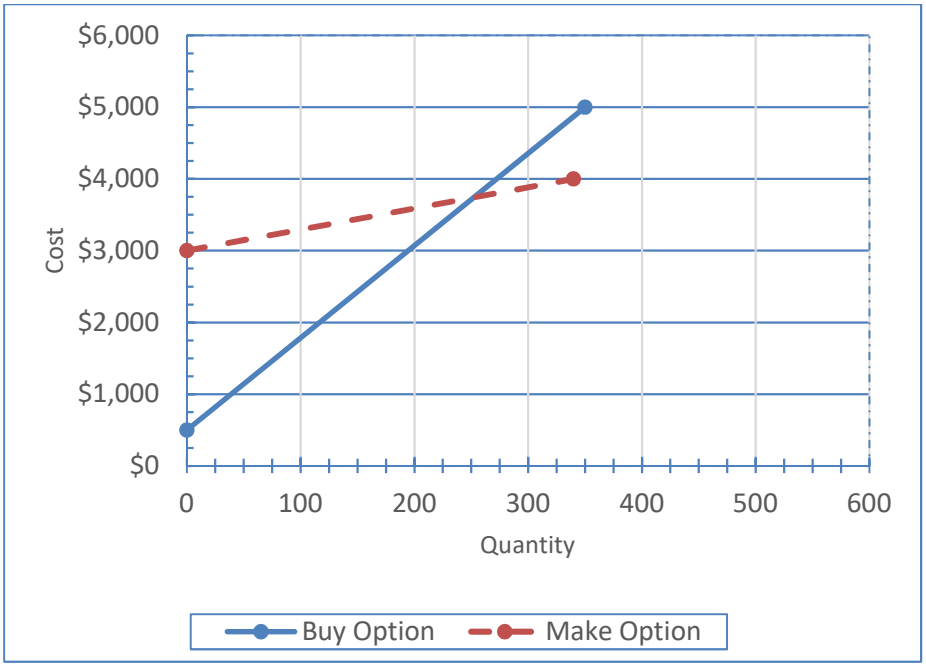
   ANS:
   Reasons a person might buy a restaurant might decide to buy pre-made desserts from a supplier.
   a. Cost – Creating a high-quality dessert might require unusual, as well as, a large number of ingredients. They may not be able to take advantage of economies of scale, if they do not sell a lot of desserts. It also may be quite costly to hire a specialist to make the desserts.
   b. Insufficient Capacity – A restaurant may not have the capacity to make fresh desserts daily to fulfill the demand. They might not be able to offer a large selection of desserts.
   c. Lack of expertise – The restaurant personnel may not know how to make specialized desserts. Or perhaps it is difficult to hire a dessert specialist.
   d. Quality – While they may have the time, money, and skill to make desserts, they may not be able to make them as well as a place which specializes in desserts.

   Similar answers with slightly different rationale may also be acceptable.

   PTS: 5
   BUSPROG: Communication LO: 2-4 Bloom's: Application Difficulty: Moderate

3. Answer the questions that follow, based on the diagram provided below

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner



a. What are the fixed costs for the buy decision?
b. What is the breakeven quantity for the two options illustrated?
c. At Q = 300, would you choose the make or buy option? Why?
d. At Q = 200, what will be the total cost associated with the best decision at this quantity?

ANS:

a. *What are the fixed costs for the buy decision?*
$500

b. *What is the breakeven quantity for the two options illustrated?*
The Break-even quantity seems to be near 250 units. Using this chart, anything within 230 and 270 would probably deemed acceptable.

c. *At Q = 300, would you choose the make or buy option? Why?*
The make option is better since the total costs for making are about $3900 versus about $4400 for buying.

d. *At Q = 200, what will be the total cost associated with the best decision at this quantity?*
The best decision is to buy, and the total cost is slightly over $3000.

PTS: 5
BUSPROG: Analytic LO: 2-4 Bloom's: Analysis Difficulty: Moderate

4. Global sourcing has become commonplace. Many companies now consider expanding their supply base to include foreign suppliers. List three reasons why companies choose to source globally.

ANS:
Lower price of materials (and services)
Overseas products may be of higher quality
Faster delivery times
Better array of services offered by the material supplier
Favorable exchange rates

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

Support local economies
Countertrade contracts

PTS: 5
BUSPROG: Diversity LO: 2-4 Bloom's: Comprehension Difficulty: Moderate

ESSAY

1. The BOEHM Cell Phone Company has developed a new series of phones that it plans to bring to the market in the next 18 months. Management is considering whether to produce the product in-house or to contract out the purchasing and manufacturing of their new cell phones.

   Provide FOUR conditions that would favor outsourcing and FOUR conditions that would favor making the cell phones in-house.

   ANS:
   Conditions that favor outsourcing:
   a. If other firms are offering cost advantages.
   b. If Boehm Cell Phone does not have sufficient capacity to meet the expected demand for the new line of cell phones.
   c. Perhaps Boehm is largely a design company that does not have expertise in purchasing and manufacturing. An outside firm might be better qualified to deliver a high quality product at a lower price.
   d. Outside companies may offer higher quality due to advantages in areas of skill, technology, and business processes.

   Conditions that favor making the cell phones in-house:
   a. If the technology associated with the new lines of phones is proprietary, it may be easier to maintain secrecy in both manufacturing and in first-to-market marketing.
   b. Perhaps no one is capable of producing this product or a necessary component.
   c. If the firm feels that its quality programs are superior to any potential business partner, they may prefer to do it themselves to preserve the integrity of the brand.
   d. The company expects manufacturing capacity to be available once the product goes into production.
   e. If the company prefers to have more control over distribution related activities.
   f. If the company has the capability to produce the product at a lower cost if advantages in supply chain capabilities and/or economies of scale exist.

   PTS: 10
   BUSPROG: Communication LO: 2-4 Bloom's: Application Difficulty: Difficult

2. Under which conditions would you most likely utilize a centralized purchasing system? List two advantages that would be gained by utilizing a centralized purchasing system.

   Under which conditions would you most likely utilize a decentralized purchasing system? List two advantages that would be gained by utilizing a decentralized purchasing system.

   ANS:
   Under which conditions would you most likely utilize a centralized purchasing system?

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

A centralized purchasing system would be favored by a company that is looking to reduce safety stocks, increase control in purchasing, centralize decision making, avoid duplicate purchases, centrally manage supplier relationships, and maximize available quantity discounts.

List two advantages that would be gained by utilizing a centralized purchasing system.

a. Concentration of purchasing leading to lower purchase costs
b. Avoiding duplication of job functions
c. Buyer specialization
d. Lower transportation costs
e. Easier to negotiate contracts and manage relationships with a common supplier base
f. No competition between units when purchasing the same material

Under which conditions would you most likely utilize a decentralized purchasing system?
A decentralized purchasing system would be favored by a company that is looking to make quicker decisions, maintain stocks that are closer to their customers, and identify and respond to changing customer needs at the local level.

List two advantages that would be gained by utilizing a decentralized purchasing system.

a. Individual and decentralized buyers often have a greater knowledge of the exact needs for each individual unit utilized by organization.
b. Decentralization is more conducive to local sourcing. Local sourcing offers an organization the opportunity to obtain faster delivery times, more frequent deliveries, while still maintaining very close supplier ties.
c. Decentralization allows quicker response because the decentralized purchasing allows for faster decisions because of decreased bureaucracy.

PTS: 10
BUSPROG: Communication LO: 2-7 Bloom's: Comprehension Difficulty: Moderate

3. The term Supply Management is used to describe responsibilities above and beyond those of traditional purchasing. What are three of these key activities and why are they considered important to Supply Management?

ANS:
Other answers are possible.

a. Supply Management is responsible for the uninterrupted flow of raw materials
b. Supply Management is responsible for the acquisition of materials at lowest total cost
c. Supply Management is responsible for improving the quality of finished goods through the purchase of high-quality components and/or raw materials.
d. Modern supply chains require close partnerships with suppliers; Supply Management departments are very often responsible for maintaining those relationships
e. Pushing suppliers to improve the quality of their raw materials and/or components
f. Supply Management departments are often responsible for assisting in collapsing design-to-production cycle time
g. Supply Management departments are often seen as a conduit between external suppliers and internal design and/or operations people.

PTS: 10
BUSPROG: Communication LO: 2-1 Bloom's: Comprehension Difficulty: Moderate

4. Use the following information to determine which supplier for steering wheels is more cost-effective using total cost analysis. Late delivery of the component results in 50% lost sales and 50% back orders of finished goods.

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

Table 1

Order lot size	400
Annual Requirements	4,800 units
Weight per steering wheel	20 pounds
Order processing cost	$125
Inventory carrying rate	20% per year
Cost of working capital	10% per year
Profit margin	20%
Price of finished golf cart	$5,000
Back order cost	$15 per unit

Table 2

Unit Price	**Supplier A**	**Supplier B**
1 to 999 units/order	$48	$47
1000 to 2,999 units/order	$47	$46
Tooling cost	$1000	$1000
Terms	2/10 net 30	1/10, net 30
Distance	120 miles	100 miles
Supplier Quality Rating (defects)	3%	2%
Supplier Delivery Rating (late)	1%	2%

Here is the freight rates for
Truckload (TL ≥ 40,000 lbs): $0.90 per ton-mile
Truckload Less-than-truckload (LTL): $1.10 per ton-mile
Note: per ton-mile = 2,000 lbs. per mile; number of days per year = 365

Answer:
Total cost of ownership = Total steering wheel cost - Cash Discount + Tooling cost + Transportation cost + Ordering cost + Carrying Cost + Quality cost + Delivery rating (Back Order Cost and Lost Sales).

Supplier A
Total steering wheel cost = 4800 x 48 = $230,400
- Cash Discount A = 230,400 x (10% x 30/365) = $1894
- Cash Discount B = 230,400 x (10% x 10/365 + 2%) = $5239 use this for biggest savings
+ Tooling cost = 1000
+ Transportation cost = (400 x 20) = 80000 so must use LTL shipment at $1.10 per ton-mile
120 x 4800 x 20 x 1.10/2000) = 6336
+ Ordering cost = (4800/400) x 125 = $1500
+ Carrying Cost = (400/2) x 48 x 20%= $1920
+ Quality cost = 230,400 x 3% = $6912
+ Delivery rating - Back order cost (50%) = 4800 x 1% x 50% x 15 = $360
Lost Sales (50%) = 4800 x 1% x 50% x 5000 x 20% = $24,000

Total cost of ownership = 230,400 - 5239 + 1000 + 6336 +1500 + 1920 + 6912 + 360 + 24000 = $267,189

Supplier B
Total steering wheel cost = 4800 x 47 = $225,600
- Cash Discount A = 225,600 x (10% x 30/365) = $1854
- Cash Discount B = 225,600 x (10% x 10/365 + 2%) = $5130 use this for biggest savings
+ Tooling cost = 1000
+ Transportation cost = (400 x 20) = 80000 so must use LTL shipment at $1.10 per ton-mile

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner

100 x 4800 x 20 x 1.10/2000) = 5280
+ Ordering cost = (4800/400) x 125 = $1500
+ Carrying Cost = (400/2) x 47 x 20%= $1880
+ Quality cost = 225,600 x 2% = $4512
+ Delivery rating - Back order cost (50%) = 4800 x 2% x 50% x 15 = $720
Lost Sales (50%) = 4800 x 2% x 50% x 5000 x 20% = $48,000

Total cost of ownership = 225,600 - 5130 + 1000 + 5280 +1500 + 1880 + 4512 + 720 + 48000 = $283,362

The total cost analysis shows that Supplier A is more cost-effective, even though the unit price is higher than Supplier B. Supplier A has a better cash discount rate, and better delivery performance rating.

PTS: 10
BUSPROG: Communication LO: 2-5 Bloom's: Application Difficulty: Difficult

Access Complete Test Bank for Principles of Supply Chain Management 5th Wisner