1. Which one of the following is NOT an assumption of the Economic Order Quantity (EOQ) model?

a. Quantity discounts can be taken advantage of for large lot sizes.

b. The amount of an order received is exactly equal to what was ordered, without any short shipments from a supplier or scrap losses in the shop.

c. Decisions for one item can be made independently of decisions made for other items.

d. There is no uncertainty in lead-time.

1. A company using an EOQ policy enjoys rising annual demand for their products for three consecutive years. Their holding cost and ordering cost remain constant during this time. Which one of the following statements is TRUE?

a. Their order quantity will fall but the time between orders will rise.

b. Their order quantity will rise but the time between orders will fall.

c. Their order quantity will rise and so will the time between orders.

d. Their order quantity will fall and so will the time between orders.

1. Consider the following data for an independent demand item maintained by Vicki Crittenden, the proprietor of a local auto repair shop:

|  |  |
| --- | --- |
| Weekly demand | 75 units |
| Ordering cost | $15/order |
| Holding cost | $1.25/unit/year |
| Weeks in a year | 50 weeks |

If Crittenden uses the EOQ model, how frequently must she place orders for this item?

a. Every 3 weeks

b. Every week

c. Every 4 weeks

d. Every 2 weeks

 Table 5

|  |  |
| --- | --- |
| Demand  | 52,000 units/year |
| Standard deviation of weekly demand | 120 units |
| Ordering costs | $50 /order |
| Holding cost | $0.60/unit/year |
| Cycle-service level | 95% |
| Lead time | 2 weeks |
| Number of weeks per year | 52 weeks |

A firm uses the periodic review system to control the item depicted above. It reviews the item's status every three weeks (P = 3). At the most recent review an inventory clerk just checked the inventory of this item and found 1200 units. There were no scheduled receipts and no back orders. How many units should be ordered?

a. Greater than 4500 but less than or equal to 5000 units

b. Less than or equal to 3500 units

c. Greater than 5000 units

d. Greater than 3500 but less than or equal to 4500 units

1. Assume the firm changed to a continuous review system to control the item depicted in Table 5. What would be the total (annual) Q system costs?

a. Greater than $1000 but less than or equal to $1500.

b. Greater than $2000.

c. Less than or equal $1000.

d. Greater than $1500 but less than or equal to $2000.

1. A successful computer manufacturer makes a generic computer in six exciting colors. Once orders are received, the computer guts are encased in the customer's choice of colored case at the factory. This approach to production is known as:

a. postponement.

b. strategic production.

c. channel assembly.

d. strategic sourcing.

1. Responsive supply chains should be preferred when:

a. product variety is low.

b. product variety is high.

c. demand is predictable.

d. contribution margins are low.

1. The objective of a firm in a responsive supply chain is likely to be realized if it has a

a. line flow process.

b. standardized product.

c. short lead time.

d. low-capacity cushion.

1. Which of the following statements about locating facilities in the service sector is best?

a. The factors that apply to manufacturing firms often also apply to service facilities, but the impact of the location on sales and customer satisfaction is an important addition.

b. Creating a critical mass is a strategy that avoids locating near competing firms.

c. Management should avoid locating facilities where competitors are already well established, as illustrated by new car showrooms.

d. "Site specific" factors are the main reason for locating warehousing and distribution operations near the customer.

1. A quantitative method used to evaluate single locations based primarily on proximity is:

a. a preference matrix.

b. the load-distance method.

c. the transportation method.

d. break-even analysis.

 11. Which one of the following statements regarding location decisions is FALSE?

a. One dominant factor in locating manufacturing facilities is a favorable labor climate.

b. If the customer must be physically present at the process, location is an important issue.

c. When outbound transportation costs are a dominant factor, manufacturing facilities should be located close to suppliers and resources needed for production.

d. Two conditions must be met by factors selected to evaluate location decisions: the factors must have a high impact on the company's ability to meet its goals and the factors themselves must be affected by the location decision.

1. Which of the following changes would decrease the likelihood of the bullwhip effect?

a. Sending late deliveries of an order.

b. Changing the mix of items in an order.

c. Instituting a policy of no discounts or promotions.

d. Sending partial shipments of an order.

1. A new product development team that is composed of product and process engineers, marketers, quality specialists, and buyers that work together to make sure the new product can actually be built is engaging in:

a. reverse logistics.

b. joint application development.

c. concurrent engineering.

d. core process design.

1. Which one of the following statements concerning supplier relationship process is FALSE?

a. Suppliers can gain power from a number of sources in the buyer / supplier relationship. When a buyer has access to knowledge, information and skills desired by the supplier, this is called a coercive source of power.

b. The practice of selecting suppliers and giving them significant responsibility for the design of certain components or systems of the product is called presourcing.

c. Suppliers can gain power from a number of sources in the buyer / supplier relationship. When a supplier values identification with a buyer, this is called a referent source of power.

d. A systematic effort to reduce the cost or improve the performance of services or products is known as value analysis.

 15. Which of these statements about disaster relief supply chains is best?

a. Employee turnover in disaster relief is low since these individuals are dedicated to the cause.

b. Supplies follow a pull flow initially but change to a push flow once demand is more predictable.

c. Critical supplies are usually deployed the instant they are available in the disaster zone.

d. Most disaster relief supply chains exist for only short times.

1. Which of the following statements concerning supply chain environmental and social responsibility is TRUE?

a. A just-in-time (JIT) system minimizes inventory cost for the company but increases inconvenience in the form of noise, traffic, and air pollution for the community at large.

b. A take back incentive by a company is a promise to provide a new copy of a product if another copy is returned.

c. An increase in freight density results in a decrease in carbon footprint.

d. The so-called carbon footprint for a process is a myth, similar in concept to the British thermal unit (Btu).

1. Which one of the following statements concerning production and staffing plans is FALSE?

a. Aggregation can be performed along three dimensions: product families, labor, and time.

b. A production plan generally focuses on production rates and inventory holdings, whereas a staffing plan focuses on staffing and other labor-related factors.

c. A master production schedule is a schedule that specifies the timing, size, and sequence of production for aggregated product families.

d. A producer of greeting cards for all occasions can use a level strategy to good advantage because of the complementary nature of the products and the workforce to produce many varieties of cards.

1. Which one of the following examples is an example of revenue management?

a. Accumulating backorders to smooth demand.

b. Scheduling specific times for dental appointments.

c. Two passengers, sitting side-by-side in an airplane, charged different prices depending on when they made their reservations.

d. Two-for-one pricing for bath towels.

1. Which one of the following statements about demand management is FALSE?

a. The lawn mower manufacturer decided to produce snow blowers to stay busy year-round. These two devices can be described as complementary products.

b. The fast food restaurant had a happy hour drink special, 96 ounces of your favorite beverage for the price of only 64 ounces, from 2 pm to 4 pm. This is an example of promotional pricing used to manage demand.

c. A company can use promotional campaigns to cope with its seasonal demand patterns.

d. Some ways to manage demand include building anticipation inventories of goods and hiring or laying off employees.

1. If a company aims to minimize the amount of its average inventory, which one of the following MRP lot-sizing rules should the company use?

a. Periodic order quantity (POQ) with P=3.

b. Lot for lot (LFL).

c. Economic order quantity (EOQ).

d. Fixed order quantity (FOQ).

1. Which of the following statements about Materials Requirements Planning (MRP) is TRUE?

a. Among the four core processes of an organization that link activities within and across firms in a supply chain, the MRP interacts with all of them either through its inputs or outputs.

b. MRP explosion occurs when the system is bombarded with too many orders to schedule at one time.

c. MRP gross requirements for a parent item are equal to the planned order releases of its components.

d. Purchasing orders are inputs to the MRP system.