Free Questions for CPIM-Part-2 by actualtestdumps

Shared by Ramos on 29-01-2024

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

What priority control technique is most appropriate for a firm using a cellular production system?

Options:

A- Shortest processing time (SPT) rule

B- Distribution requirements planning (DRP)

C- Pull production activity control (PAC)

D- Push production activity control (PAC)

Answer:

C

Explanation:

A priority control technique is a method of determining the sequence and timing of production orders in a manufacturing system. A priority control technique can be either push or pull, depending on whether the production orders are initiated by the upstream or

downstream processes. A cellular production system is a process of manufacturing that organizes the machines and workers into self-contained cells that can produce different products efficiently and flexibly. A cellular production system is usually based on the principles of lean manufacturing and group technology, which aim to eliminate waste and improve quality.

A pull production activity control (PAC) is a priority control technique that is most appropriate for a firm using a cellular production system. A pull PAC is a method of controlling the flow of materials and work-in-progress in a manufacturing system by using signals from the downstream processes to trigger the release of production orders from the upstream processes. A pull PAC helps to reduce inventory, lead time, and overproduction, as well as to synchronize the production with the customer demand. A pull PAC can be implemented using various techniques, such as kanban cards, containers, or electronic signals.

A shortest processing time (SPT) rule is a priority control technique that assigns the highest priority to the production order that has the shortest processing time at each workstation. An SPT rule helps to minimize the average waiting time and flow time of the production orders, as well as to increase the utilization of the machines and workers. However, an SPT rule does not consider the due dates or the customer demand of the production orders, and may result in poor customer service or low delivery performance.

A distribution requirements planning (DRP) is a priority control technique that determines the quantity and timing of finished goods to be delivered to various distribution centers or customers. A DRP is based on the forecasted demand, the inventory status, and the transportation lead time of the finished goods. A DRP helps to optimize the inventory level, reduce stockouts, and improve customer service. However, a DRP is not suitable for a cellular production system, as it does not control the flow of materials and work-in-progress within the manufacturing system.

A push production activity control (PAC) is a priority control technique that initiates the production orders based on the master production schedule or the forecasted demand from the upstream processes. A push PAC releases the production orders in batches or lots, regardless of the capacity or status of the downstream processes. A push PAC may result in high inventory, long lead time, and overproduction, as well as low flexibility and responsiveness to customer demand. A push PAC is not compatible with a cellular production system, as it contradicts the principles of lean manufacturing and group technology.Reference: CPIM Exam Content Manual Version 7.0, Domain 6: Plan, Manage, and Execute Detailed Schedules, Section 6.1: Detailed Scheduling Concepts, p. 36;Cellular

manufacturing; [Production Activity Control].

Question 2

Question Type: MultipleChoice

An advantage of activity-based costing (ABC) is:

Options:

A- it allows raw material costs to be allocated on a per unit basis.

B- it uses cost drivers to allocate costs to products.

C- it is easier to establish standard costs.

D- it enables overhead costs to be allocated evenly across all products.

Answer:

B

Explanation:

Activity-based costing (ABC) is a method of allocating costs to products or services based on the activities that consume resources in the production or delivery process. ABC identifies the cost drivers, which are the factors that cause or influence the amount of resources used for each activity. ABC then assigns costs to products or services based on the amount of cost drivers they use. An advantage of ABC is that it uses cost drivers to allocate costs to products, which provides a more accurate and realistic picture of the cost structure and profitability of each product or service. ABC helps to identify the value-added and non-value-added activities, and to eliminate or reduce the waste and inefficiency in the process. ABC does not allow raw material costs to be allocated on a per unit basis, as raw material costs are usually considered as direct costs that can be traced to each product or service. ABC does not make it easier to establish standard costs, which are the predetermined or expected costs of producing or delivering a product or service. ABC does not enable overhead costs to be allocated evenly across all products, as overhead costs are the indirect costs that cannot be traced to each product or service. ABC allocates overhead costs based on the cost drivers, which may vary for different products or services.Reference: CPIM Exam Content Manual Version 7.0, Domain 8: Manage Quality, Continuous Improvement, and Technology, Section 8.2: Continuous Improvement Concepts, p. 46; Activity-Based Costing (ABC) Definition; Activity-based costing.

Question 3

Question Type: MultipleChoice

Adopting a lean approach to manage supply chain throughput rather than a more traditional approach means that:

Options:

A- mare capacity may be required.

B- less training may be required.

C- more inventory may be required.

D- longer cycle times may occur,

Answer:

A

Explanation:

Adopting a lean approach to manage supply chain throughput rather than a more traditional approach means that more capacity may be required. Throughput is the rate at which a system produces or processes its output. A lean approach is a philosophy that aims to eliminate waste and improve efficiency by focusing on customer value, continuous improvement, and pull systems. A traditional approach is a philosophy that relies on forecasting, push systems, and large batch sizes. A lean approach may require more capacity because it reduces inventory levels, buffers, and safety stocks, which may expose the system to more variability and uncertainty. More capacity may be needed to cope with fluctuations in demand or supply, and to maintain high service levels. A lean approach does not necessarily require less training, as it involves empowering employees, cross-training them, and involving them in problem-solving and improvement activities. A lean approach does not necessarily require more inventory, as it aims to minimize inventory and its associated costs. A lean approach does not necessarily result in longer cycle times, as it strives to reduce lead times, setup times, and waiting times.Reference: CPIM Exam Content Manual Version 7.0, Domain 4: Plan and Manage Supply, Section 4.2: Supply Planning Methods, p. 26; Lean Manufacturing; Throughput.

Question 4

Question Type: MultipleChoice

In a rapidly changing business environment, a primary advantage of an effective customer relationship management (CRM) program is:

Options:

A- reduced forecast variability.

B- fewer customer order changes.

C- fewer customer defections.

D- earlier identification of shifts in customer preferences.

Answer:

D

Explanation:

Customer relationship management (CRM) is a program that uses data and technology to manage the interactions and relationships with customers. CRM helps to understand the needs, preferences, and behaviors of customers, and to provide them with better products, services, and experiences. In a rapidly changing business environment, a primary advantage of an effective CRM program is earlier identification of shifts in customer preferences. This means that CRM can help to detect and anticipate the changes in customer demand, tastes, or expectations, and to respond accordingly. This can help to improve customer satisfaction, loyalty, and retention, as well as to gain a competitive edge in the market. CRM does not necessarily reduce forecast variability, which is the degree of difference between the actual demand and the forecasted demand. CRM does not necessarily reduce customer order changes, which are the modifications or cancellations of orders by customers. CRM does not necessarily reduce customer defections, which are the losses of customers to competitors or other alternatives.Reference: CPIM Exam Content Manual Version 7.0, Domain 3: Plan and Manage Demand, Section 3.1: Demand Management Concepts, p. 16; Customer relationship management; Customer Relationship Management (CRM) Definition.

Question 5

Question Type: **MultipleChoice**

A company has deployed its own proprietary software for web hosting and order management. This software has been recognized as best-in-class. The proprietary software represents what defensive operational strategy used to sustain the company's business over time?

Options:

A- Difficult to substitute

B- B. Difficult to relocate

C- Scarcity

D- Difficult to copy

Answer:

D

Explanation:

Difficult to copy is a defensive operational strategy used to sustain the company's business over time by creating a unique product or service that is hard for competitors to imitate. The proprietary software for web hosting and order management represents this strategy, as it has been recognized as best-in-class and may have some features or functions that are not easily replicated by others. Difficult to substitute is a defensive operational strategy that creates a product or service that has no close substitutes in the market, making it more valuable and desirable for customers. Difficult to relocate is a defensive operational strategy that locates the production or service facilities in a place that has some advantages or benefits that are not available elsewhere, such as low labor costs, favorable tax policies, or access to natural resources. Scarcity is a defensive operational strategy that creates a product or service that has limited supply or availability, making it more exclusive and attractive for customers.Reference: CPIM Exam Content Manual Version 7.0, Domain 8: Manage Quality, Continuous Improvement, and Technology, Section 8.1: Quality Concepts, p. 44; Defensive Strategy; Competitive Advantage.

Question 6

Question Type: MultipleChoice

In a lean environment, one uses material requirements planning (MRP) processing primarily to:

Options:

A- create plans to share with suppliers.

B- calculate average daily demand.

C- determine the kanban circuit locations.

D- determine where to use supermarkets.

Answer:

A

Explanation:

In a lean environment, one uses material requirements planning (MRP) processing primarily to create plans to share with suppliers. MRP is a software-based system that calculates the quantity and timing of materials needed for production, based on the master production schedule, the bill of materials, and the inventory status. MRP helps to coordinate the flow of materials from suppliers to the production process, reducing waste and inventory costs. MRP can also generate purchase orders, work orders, and other documents to communicate the plans with suppliers and internal departments. MRP does not calculate average daily demand, which is a measure of the average amount of a product or service that is sold or consumed per day. MRP does not determine the kanban circuit locations, which are the physical places where kanban cards or containers are exchanged between processes in a pull system. MRP does not determine where to use supermarkets, which are locations where a small amount of inventory is kept to buffer against fluctuations in demand or supply.Reference: CPIM Exam Content Manual Version 7.0, Domain 4: Plan and Manage Supply, Section 4.1: Supply Planning Concepts, p. 24;Lean MRP;Manufacturing resource planning.

Question 7

Question Type: MultipleChoice

Which of the following stock location systems would you use in a repetitive manufacturing, lean environment?

Options:

A- Fixed location

B- Floating location

C- Point-of-use storage

D- Central storage N

Answer:

C

Explanation:

Point-of-use storage is a stock location system that places inventory close to where it is needed in the production process, reducing transportation and handling costs and improving efficiency. It is often used in repetitive manufacturing, lean environment, where the demand is stable and predictable, and the inventory is replenished frequently. Fixed location and central storage are stock location systems that store inventory in a designated area, which may require more space and movement. Floating location is a stock location system that assigns inventory to any available space, which may cause confusion and inefficiency.Reference: CPIM Exam Content Manual Version 7.0, Domain 5: Plan and Manage Inventory, Section 5.2: Inventory Management Methods, p. 32.

Question 8

Question Type: MultipleChoice

The most appropriate production output reporting method for repetitive manufacturing is:

Options:

A- operation-by-operation.

B- count point.

C- job tickets.

D- backflush.

Answer:

D

Explanation:

The most appropriate production output reporting method for repetitive manufacturing is backflush.Repetitive manufacturing is a production system where the same or similar products are produced in large quantities or in a continuous flow1.Backflush is a method of reporting output and consumption of materials at the end of the production process, rather than at each operation or stage2. Backflush can simplify and streamline the production output reporting process, as it eliminates the need for tracking and recording each individual transaction or movement of materials and components.Backflush can also reduce the paperwork, errors, and costs associated with production output reporting2.

The other options are not as appropriate as backflush for repetitive manufacturing.Operation-by-operation is a method of reporting output and consumption of materials at each operation or stage of the production process3. This method can provide more detailed and accurate information about the production performance and costs, but it can also be more complex and time-consuming, as it requires tracking and recording each individual transaction or movement of materials and components.Count point is a method of reporting output and consumption of materials at selected points or milestones in the production process4. This method can provide a balance between detail and simplicity, but it can also introduce errors or discrepancies, as it requires estimating or extrapolating the output and consumption of materials between the count points.Job tickets are documents that record the time, materials, and costs associated with a specific job or order5. This method can provide more flexibility and customization, but it can also be more suitable for job shop or batch production systems, where different products are produced in small quantities or on demand.

Question 9

Question Type: MultipleChoice

Which of the following activities would be effective to mitigate the bullwhip effect?

Options:

A- Implement track and trace technology.

B- Use a push system.

C- Reduce lead times.

D- Increase inventory.

Answer:

C

Explanation:

The bullwhip effect is a supply chain phenomenon that causes fluctuations in demand to amplify as they move upstream, from the consumer to the retailer, to the distributor and then to the producer1.The bullwhip effect can result in inefficiencies and costs such as excess inventory, lost revenues, superfluous capacity and poor customer service1.

One of the activities that would be effective to mitigate the bullwhip effect is to reduce lead times, which are the time intervals between placing an order and receiving the goods2.Reducing lead times can help to reduce the uncertainty and variability in demand, as well as improve the responsiveness and flexibility of the supply chain2. By reducing lead times, the supply chain partners can order less frequently and in smaller quantities, while still meeting customer demand.This can reduce the need for safety stock, cycle stock and pipeline stock, and thus lower the inventory carrying costs and risks2.

The other options are not effective activities to mitigate the bullwhip effect.Implementing track and trace technology, which is a method for tracking the origin, history, location and status of a product or its parts throughout the supply chain3, may help to improve the visibility and transparency of the supply chain, but it may not reduce the demand fluctuations or inventory imbalances caused by the bullwhip effect.Using a push system, which is a production system where goods are produced based on forecasted demand rather than actual customer orders4, may increase the risk of overproduction or underproduction, as well as create more inventory and waste in the supply

chain.Increasing inventory, which is the stock of goods or materials held by a company to meet customer demand5, may increase the inventory carrying costs and risks, as well as tie up cash flow and working capital.

Question 10

Question Type: MultipleChoice

A product family consists of 46 items, each having 5 features available and 6 options available. At which level of the bill of material (BOM) would it be most appropriate to forecast?

Options:

A- Subassembly level items

B- Component level items

C- Final assembly level items

D- Both subassembly level and final assembly level items

Answer:

C

Explanation:

A product family is a group of products that share common characteristics, components, or functions, and that satisfy a similar customer need or market segment1.A bill of material (BOM) is a list of all the materials, components, and subassemblies required to manufacture a product2. A BOM can have different levels, depending on the complexity and structure of the product. The most common levels are:

Final assembly level: This is the highest level of the BOM, where the finished product is shown as a single item.This level contains the basic information about the product, such as its name, description, quantity, and unit of measure2.

Subassembly level: This is the intermediate level of the BOM, where the subassemblies or modules that make up the final product are shown as separate items.A subassembly is a group of components or parts that are assembled together to perform a specific function within the final product3.This level contains the information about the subassemblies, such as their names, descriptions, quantities, units of measure, and relationships to the final product2.

Component level: This is the lowest level of the BOM, where the individual components or parts that make up the subassemblies or the final product are shown as separate items.A component is a basic element or material that is used to manufacture a subassembly or a final product4.This level contains the information about the components, such as their names, descriptions, quantities, units of measure, and relationships to the subassemblies or the final product2.

The most appropriate level of the BOM to forecast for a product family depends on several factors, such as the demand variability, production lead time, inventory cost, and customer preference of each level5.However, in general, it is advisable to forecast at the highest possible level of aggregation that still meets the customer requirements and expectations5.This is because forecasting at a higher level can reduce the forecast error and uncertainty, improve the forecast accuracy and reliability, and simplify the forecasting process5.

Therefore, for a product family that consists of 46 items, each having 5 features available and 6 options available, it would be most appropriate to forecast at the final assembly level items. This is because forecasting at this level can capture the overall demand pattern and trend of the product family, without getting into too much detail or complexity.Forecasting at this level can also allow for more flexibility and responsiveness in meeting customer needs and preferences by using postponement strategies6.Postponement strategies involve delaying some aspects of production or customization until after receiving customer orders6. For example, instead of forecasting and producing each item with each feature and option in advance, which would result in 46 x 5 x 6 = 1380 different combinations, the company can forecast and produce only 46 items at the final assembly level and then add features and options later according to customer orders.

The other options are not as appropriate as forecasting at the final assembly level items. Forecasting at the subassembly level items may be too detailed and complex for a product family with many features and options available. Forecasting at this level may result in higher forecast error and uncertainty, lower forecast accuracy and reliability, and more complicated forecasting process. Forecasting at this level may also reduce flexibility and responsiveness in meeting customer needs and preferences by committing resources too early in production. Forecasting at the component level items may be even more detailed and complex than forecasting at the subassembly level items. Forecasting at this level may have all the disadvantages mentioned above, as well as increase inventory cost and risk by holding too many components in stock.

Question 11

Question Type: MultipleChoice

A manufacturer wishes to decrease the time-to-market for a new product family. Which of the following strategies should be used?

Options:

A- Decrease the number of suppliers for components of the new product.

B- Decrease the purchasing lot size for the new product's components.

C- Increase collaboration between the buyer and the supplier of new components.

D- Increase the safety stocks for the new product's components.

Answer:

C

Explanation:

Time-to-market (TTM) is the length of time it takes to develop a product from conception until it is released to the market and is available for sale1.Reducing TTM can provide a competitive advantage, as it can help a company to capture customer demand, respond to market changes, and increase profitability1.

One strategy to decrease TTM for a new product family is to increase collaboration between the buyer and the supplier of new components.Collaboration can involve sharing information, resources, risks, and rewards among supply chain partners to achieve mutual benefits2.By collaborating with the supplier of new components, the buyer can improve the quality, reliability, and innovation of the components, as well as reduce the costs, lead times, and uncertainties associated with them2. This can speed up the product development process and reduce the time and resources required to bring the new product family to the market.

The other options are not effective strategies to decrease TTM for a new product family.Decreasing the number of suppliers for components of the new product may reduce the complexity and variability of the supply chain, but it may also increase the dependency and vulnerability on a single or few suppliers, which may affect the availability and performance of the components3.Decreasing the purchasing lot size for the new product's components may reduce the inventory carrying costs and risks, but it may also increase the ordering costs and frequency, which may affect the efficiency and responsiveness of the supply chain4. Increasing the safety stocks for the new product's components may reduce the risk of stockouts and delays, but it may also increase the inventory carrying costs and risks, as well as tie up cash flow and working capital.