Free Questions for CPIM-Part-2 by ebraindumps

Shared by Horne on 22-07-2024

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

The horizon for forecasts that are input to the sales and operations planning (S&O0P) process should be long enough that:

Options:

A- cumulative forecast deviation approaches zero.

B- planned product launches can be incorporated.

C- required resources can be properly planned.

D- supply constraints can be resolved.

Answer:

C

Explanation:

The horizon for forecasts that are input to the sales and operations planning (S&OP) process should be long enough that required resources can be properly planned. The S&OP process is a cross-functional process that aligns the demand and supply plans of an organization. The S&OP process consists of several steps, such as data gathering, demand planning, supply planning, pre-S&OP

meeting, executive S&OP meeting, and S&OP implementation. The output of the S&OP process is the production plan, which is a statement of the resources needed to meet the aggregate demand plan over a medium-term horizon. The production plan can be stated in different units of measure depending on the type of manufacturing environment, such as hours, units, tons, or dollars. The horizon for forecasts that are input to the S&OP process should be long enough that required resources can be properly planned, meaning that the organization can anticipate and allocate the necessary capacity, materials, labor, equipment, and facilities to meet the expected demand. The horizon for forecasts should also match the lead time for acquiring or changing the resources, as well as the planning cycle for updating the production plan.

Question 2

Question Type: **MultipleChoice**

A factory work center has the following work orders. What is the load on this work center?

Options:

A- 248 hours

B- 252.5 hours

C- 257 hours

D- 332.5 hours

Answer:

D

Explanation:

The load on a work center is the total time required to complete all the work orders assigned to that work center. The load can be calculated by multiplying the quantity and the run time of each work order, and then adding them up. The formula is:

Load = (Q1 x R1) + (Q2 x R2) + ... + (Qn x Rn)

Where Q is the quantity and R is the run time of each work order.

Using the data from the table, we can plug in the values and get:

Load = (10 x 8) + (15 x 9) + (12 x 7.5) + (20 x 10) + (8 x 6.5) = 80 + 135 + 90 + 200 + 52 = 557

Therefore, the load on this work center is 557 hours.

Question 3

Question Type: **MultipleChoice**

The primary consideration in maintenance, repair, and operating (MRO) supply systems typically is:

Options:

A- order quantity.

B- stockout costs.

C- carrying costs.

D- shelf life.

Answer:

B

Explanation:

Maintenance, repair, and operating (MRO) supply systems are systems that manage the inventory and procurement of the items that are used to support the production process, but are not part of the final product. MRO items include spare parts, tools, lubricants, cleaning supplies, safety equipment, and office supplies. The primary consideration in MRO supply systems typically is stockout costs. Stockout costs are the costs associated with the inability to meet the demand for an item due to insufficient inventory. Stockout costs can include lost sales, customer dissatisfaction, production downtime, emergency orders, and reputation damage. Stockout costs can be very high for MRO items, especially if they are critical for the operation and maintenance of the production equipment. Therefore, MRO supply systems should aim to minimize the risk of stockouts by ensuring adequate availability and accessibility of MRO items.

Question 4

Question Type: MultipleChoice

Which of the following tools is used for monitoring a capacity plan?

Options:

A- Demonstrated capacity

B- Resource planning

C- Input/output control (I/O)

D- Dispatch report &

Answer:

C

Explanation:

Input/output control (I/O) is a type of tool that is used for monitoring a capacity plan. A capacity plan is a statement of the resources needed to meet the production plan over a medium-term horizon. A capacity plan can be stated in different units of measure depending on the type of manufacturing environment, such as hours, units, tons, or dollars. Input/output control (I/O) is a method of measuring and comparing the actual input and output of a work center or a production line against the planned input and output. Input is the amount of work that is released to the work center or the production line, and output is the amount of work that is completed by the work center or the production line. Input/output control (I/O) helps to monitor the performance and efficiency of the work center or the production line, and to identify any deviations or problems that may affect the capacity plan. Input/output control (I/O) also helps to adjust the input or output levels as necessary to maintain the balance between demand and supply, and to achieve the desired throughput.

Question 5

Question Type: **MultipleChoice**

What is the purpose of a buffer in the theory of constraints (TOC)?

Options:

A- It allows for processing jobs at a lower rate than demand.

B- It prevents unplanned idleness of the resource.

C- It identifies the root cause of the constraint.

D- It opens an opportunity to exploit the system.

Answer:

B

Explanation:

A buffer in the theory of constraints (TOC) is a level of inventory that is placed before the governing constraint or the bottleneck to prevent it from being starved or idle. Buffers are used to immunize the system's performance from variability in demand or production. Buffers are part of the drum buffer rope method of scheduling and managing operations that have constraints. The purpose of a buffer in TOC is to prevent unplanned idleness of the resource, which is the most important factor that determines the throughput of the system. Throughput is the rate at which the system generates money through sales. If the resource is idle, then the system loses potential throughput and profit. Therefore, buffers are designed to ensure that there is always enough work available for the resource to process, regardless of any fluctuations or disruptions in the upstream or downstream processes.

Question 6

Question Type: MultipleChoice

A vendor-managed inventory (\VMI) program provides a benefit to the buying company in which of the following ways?

Options:

A- Reduces material cost

B- Reduces work in process (WIP)

C- Reduces administrative expenses

D- Reduces the number of quality notifications

Answer:

C

Question 7

Question Type: **MultipleChoice**

An increase in the scrap allowance in an assembled item will result in which of the following consequences?

Options:

A- An increase in the component items' cost

B- A change in the bill of materials' (BOM) quantity per assembled item

C- Replanning of the component items in material requirements planning (MRP)

D- An increase in the assembled item's planned lead time

Answer:

C

Explanation:

Scrap allowance is a percentage or quantity of material that is expected to be lost or wasted during the production process. Scrap allowance is usually applied to the component items in a bill of materials (BOM), which is a document that lists the materials, quantities, and relationships required to produce an end item. An increase in the scrap allowance in an assembled item will result in replanning of the component items in material requirements planning (MRP), which is a system that calculates the timing and quantity of materials and resources needed to meet the production plan. Replanning of the component items in MRP means that the system will adjust the planned order releases, order quantities, and due dates of the component items to account for the increased scrap allowance. Replanning of the component items in MRP will ensure that enough material is available to meet the demand for the assembled item, and to avoid shortages or excess inventory.

Question 8

Question Type: MultipleChoice

The production plan relates to a firm's financial planning because it is used to:

Options:

A- calculate standard product costs.

B- determine variable costs.

C- project payroll costs.

D- identify future cash needs.

Answer:

D

Explanation:

The production plan is a statement of the resources needed to meet the aggregate demand plan over a medium-term horizon. The production plan is the output of the supply planning step in the sales and operations planning (S&OP) process. The production plan relates to a firm's financial planning because it is used to identify future cash needs. Cash needs are the amount of money that a firm

requires to operate and grow its business. Cash needs can be influenced by various factors, such as sales revenue, cost of goods sold, operating expenses, capital expenditures, inventory levels, accounts receivable, accounts payable, and taxes. The production plan can help to estimate the cash inflows and outflows associated with these factors, and to determine the optimal balance between them. The production plan can also help to identify the potential sources and uses of cash, such as borrowing, investing, or paying dividends. By identifying future cash needs, the production plan can help to improve the firm's liquidity, profitability, and solvency.

Question 9

Question Type: MultipleChoice

If all other factors remain the same, when finished goods inventory investment is increased, service levels typically will:

Options:

A- remain the same.

B- increase in direct (linear) proportion.

C- increase at a decreasing rate.

D- increase at an increasing rate.

Answer:

C

Explanation:

Finished goods inventory is a type of inventory that consists of the final products that are ready for sale to the customers. Finished goods inventory investment is the value of the finished goods inventory held by the company. Service level is a measure of customer satisfaction that indicates the percentage of customer orders that can be fulfilled from the available inventory. Service level typically will increase when finished goods inventory investment is increased, because more inventory means more ability to meet the customer demand. However, the relationship between service level and finished goods inventory investment is not linear, but rather asymptotic. This means that service level will increase at a decreasing rate as finished goods inventory investment increases. In other words, the marginal benefit of increasing finished goods inventory investment will diminish as the service level approaches 100%. This is because there is a limit to how much inventory can improve the service level, and beyond a certain point, the additional inventory will not have a significant impact on customer satisfaction.

Question 10

Question Type: MultipleChoice

Which of the following criteria is used to determine safety stock in a distribution center (DC)?

Options:

A- Economic order quantity (EOQ) N

B- Seasonal index value

C- Alpha factor level

D- Probability of stocking out

Answer:

D

Explanation:

Safety stock is a type of inventory that is held in excess of the expected demand to protect against uncertainties such as demand variability, lead time variability, or supply disruptions. Safety stock can help to reduce the risk of stockouts, which are situations where the inventory level falls below the demand level and the customer orders cannot be fulfilled. Safety stock can be determined by using different methods, such as statistical models, service level policies, or empirical rules. One of the common criteria that is used to determine safety stock in a distribution center (DC) is the probability of stocking out, which is the likelihood that the inventory level will be insufficient to meet the demand during a replenishment cycle. The probability of stocking out can be calculated by using the normal distribution, assuming that the demand and lead time are normally distributed. The probability of stocking out can also be expressed as the complementary value of the service level, which is the percentage of customer orders that can be satisfied from the available inventory. A higher probability of stocking out implies a lower service level and a lower safety stock. A lower probability of stocking out implies a higher service level and a higher safety stock.