Fold each printed sheet in half lengthwise. The left side of the document will list the term and the right side will list the definition. Tape or staple the open edges of your flashcards. Cut out your flashcards on the solid lines indicated and fold them on the dotted lines.

Module 6
Section A: Inventory Management in Logistics

Term
Anticipation inventories

APICS CLTD Learning System © 2024

Additional inventory above basic pipeline stock to cover projected trends of increasing sales, planned sales promotion programs, seasonal fluctuations, plant shutdowns, and vacations.

Module 6
Section A: Inventory Management in Logistics

Term
Average inventory

APICS CLTD Learning System © 2024

One-half the average lot size plus the safety stock, when demand and lot sizes are expected to be relatively uniform over time. The average can be calculated as an average of several inventory observations taken over several historical time periods; for example, 12-month ending inventories may be averaged. When demand and lot sizes are not uniform, the stock level versus time can be graphed to determine the average.

Module 6
Section A: Inventory Management in Logistics

Term
Backorder

APICS CLTD Learning System © 2024

An unfilled customer order or commitment. [This is] an immediate (or past due) demand against an item whose inventory is insufficient to satisfy the demand. See: stockout.

Module 6
Section A: Inventory Management in Logistics

Term
Carrying cost

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The cost of holding inventory, usually defined as a percentage of the dollar value of inventory per unit of time (generally one year). [This] depends mainly on the cost of capital invested as well as costs of maintaining the inventory such as taxes and insurance, obsolescence, spoilage, and space occupied. Such costs vary from 10 percent to 35 percent annually, depending on type of industry. [It] is ultimately a policy variable reflecting the opportunity cost of alternative uses for funds invested in inventory. Syn.: holding costs.

Module 6
Section A: Inventory Management in Logistics

Term
Cycle stock

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One of the two main conceptual components of any item inventory, [this] is the most active component. [It] depletes gradually as customer orders are received and is replenished cyclically when supplier orders are received. The other conceptual component of the item inventory is the safety stock, which is a cushion of protection against uncertainty in the demand or in the replenishment lead time. Syn.: cycle inventory.

Module 6
Section A: Inventory Management in Logistics

Term
Decoupling

APICS CLTD Learning System © 2024

Creating independence between supply and use of material. Commonly denotes allocating inventory between operations so that fluctuations in the production rate of the supplying operation do not constrain the production or use rates of the next operation.

Module 6
Section A: Inventory Management in Logistics

Term
Economy of scale

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A phenomenon whereby larger volumes of production reduce unit cost by distributing fixed costs over a larger quantity. See: economy of scope.

Module 6
Section A: Inventory Management in Logistics

Term
Excess inventory

APICS CLTD Learning System © 2024

Any inventory in the system that exceeds the minimum amount necessary to achieve the desired throughput rate at the constraint or that exceeds the minimum amount necessary to achieve the desired due date performance. Total inventory = productive inventory + protective inventory + excess inventory.

Module 6
Section A: Inventory Management in Logistics

Term
Expedite

APICS CLTD Learning System © 2024

To rush or chase production or purchase orders that are needed in less than the normal lead time; to take extraordinary action because of an increase in relative priority. Syn.: stockchase.

Module 6
Section A: Inventory Management in Logistics

Term
Handling cost

APICS CLTD Learning System © 2024

The cost involved in the movement of material. In some cases, the handling cost depends on the size of the inventory.

Module 6
Section A: Inventory Management in Logistics

Term
Hedge inventory

APICS CLTD Learning System © 2024

A form of inventory buildup to buffer against some event that may not happen. [Planning] involves speculation related to potential labor strikes, price increases, unsettled governments, and events that could severely impair a company's strategic initiatives. Risk and consequences are unusually high, and top management approval is often required.

Module 6
Section A: Inventory Management in Logistics

Term
Inactive inventory

APICS CLTD Learning System © 2024

Stock designated as in excess of consumption within a defined period; stocks of items that have not been used for a defined period.

Module 6
Section A: Inventory Management in Logistics

Term
Inventory

APICS CLTD Learning System © 2024

1) Those stocks or items used to support production (raw materials and work-in-process items), supporting activities (maintenance, repair, and operating supplies), and customer service (finished goods and spare parts). Demand for inventory may be dependent or independent. Inventory functions are anticipation, hedge, cycle (lot size), fluctuation (safety, buffer, or reserve), transportation (pipeline), and service parts. 2) All the money currently tied up in the system. As used in theory of constraints, inventory refers to the equipment, fixtures, buildings, and so forth that the system owns—as well as inventory in the forms of raw materials, work-in-process, and finished goods.

Module 6
Section A: Inventory Management in Logistics

Term
Inventory costs

APICS CLTD Learning System © 2024

Costs associated with ordering and holding inventory. See: carrying costs, ordering cost.

Module 6
Section A: Inventory Management in Logistics

Term
Inventory management

APICS CLTD Learning System © 2024

The branch of business management concerned with planning and controlling inventories.

Module 6
Section A: Inventory Management in Logistics

Term
Inventory shrinkage

APICS CLTD Learning System © 2024

Reductions of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, evaporation, and so forth. Sometimes referred to as shrinkage.

Module 6
Section A: Inventory Management in Logistics

Term
Level of service

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A measure (usually expressed as a percentage) of satisfying demand through inventory or by the current production schedule in time to satisfy the customers' requested delivery dates and quantities. In a make-to-stock environment, [this] is sometimes calculated as the percentage of orders picked complete from stock upon receipt of the customer order, the percentage of line items picked complete, or the percentage of total dollar demand picked complete. In make-to-order and design-to-order environments, [it] is the percentage of times the customer-requested or acknowledged date was met by shipping complete product quantities. Syn.: measure of service, service level. See: cycle service level.

Module 6
Section A: Inventory Management in Logistics

Term
Lot size

APICS CLTD Learning System © 2024

The amount of a particular item that is ordered from the plant or a supplier or issued as a standard quantity to the production process. Syn.: order quantity.

Module 6
Section A: Inventory Management in Logistics

Term
Maintenance, repair, and operating (MRO) supplies

APICS CLTD Learning System © 2024

Items used in support of general operations and maintenance such as maintenance supplies, spare parts, and consumables used in the manufacturing process and supporting operations.

Module 6
Section A: Inventory Management in Logistics

Term
On-time schedule performance

APICS CLTD Learning System © 2024

A measure (percentage) of meeting the customer's originally negotiated delivery request date. Performance can be expressed as a percentage based on the number of orders, line items, or dollar value shipped on time.

Module 6
Section A: Inventory Management in Logistics

Term
Ordering cost

APICS CLTD Learning System © 2024

The costs that increase as the number of orders placed increases. Used in calculating order quantities. Includes costs related to the clerical work of preparing, releasing, monitoring, and receiving orders; the physical handling of goods; inspections; and setup costs, as applicable. See: acquisition cost, inventory costs.

Module 6
Section A: Inventory Management in Logistics

Term
Pipeline stock

APICS CLTD Learning System © 2024

Inventory in the transportation network and the distribution system, including the flow through intermediate stocking points. The flow time through the pipeline has a major effect on the amount of inventory required in the pipeline. Time factors involve order transmission, order processing, scheduling, shipping, transportation, receiving, stocking, review time, and so forth. Syn.: pipeline inventory. See: distribution system, transportation inventory.

Module 6
Section A: Inventory Management in Logistics

Term
Safety stock

APICS CLTD Learning System © 2024

1) In general, a quantity of stock planned to be in inventory to protect against fluctuations in demand or supply. 2) In the context of master production scheduling, the additional inventory and capacity planned as protection against forecast errors and short-term changes in the backlog. Overplanning can be used to create [this]. Syn.: buffer stock, reserve stock. See: hedge, inventory buffer.

Module 6
Section A: Inventory Management in Logistics

Term
Setup costs

APICS CLTD Learning System © 2024

Costs such as scrap costs, calibration costs, downtime costs, and lost sales associated with preparing the resource for the next product. Syn.: changeover costs, turnaround costs.

Module 6
Section A: Inventory Management in Logistics

Term
Stockout

APICS CLTD Learning System © 2024

A lack of materials, components, or finished goods that are needed. See: backorder.

Module 6
Section A: Inventory Management in Logistics

Term
Stockout costs

APICS CLTD Learning System © 2024

The costs associated with a stockout. Those costs may include lost sales, backorder costs, expediting, and additional manufacturing and purchasing costs.

Module 6
Section A: Inventory Management in Logistics

Term
Stockout percentage

APICS CLTD Learning System © 2024

A measure of the effectiveness with which a company responds to actual demand or requirements. [It] can be a comparison of total orders containing a stockout to total orders, or of line items incurring stockouts to total line items ordered during a [period...].

Module 6
Section A: Inventory Management in Logistics

Term
Unit cost

APICS CLTD Learning System © 2024

Total labor, material, and overhead cost for one unit of production (e.g., one part, one gallon, one pound).

Module 6
Section A: Inventory Management in Logistics

Term
Work in process (WIP)

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A good or goods in various stages of completion throughout the plant, including all material from raw material that has been released for initial processing up to completely processed material awaiting final inspection and acceptance as finished goods inventory. Many accounting systems also include the value of semifinished stock and components in this category. Syn.: in-process inventory.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
ABC classification

APICS CLTD Learning System © 2024

The classification of a group of items in decreasing order of annual dollar volume (price multiplied by projected volume) or other criteria. This array is then split into three classes [...]. The [first] group usually represents 10 percent to 20 percent by number of items and 50 percent to 70 percent by projected dollar volume. The next grouping [...] usually represents about 20 percent of the items and about 20 percent of the dollar volume. The [third] class contains 60 percent to 70 percent of the items and represents about 10 percent to 30 percent of the dollar volume. The ABC principle states that effort and money can be saved through applying looser controls to the low-dollar-volume class items than to the high-dollar-volume class items. The ABC principle is applicable to inventories, purchasing, and sales. Syn.: ABC analysis, distribution by value. See: 80-20, Pareto analysis, Pareto's law.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Consigned stocks

APICS CLTD Learning System © 2024

Inventories, generally of finished goods, that are in the possession of customers, dealers, agents, brokers, etc., but remain the property of the manufacturer by agreement with those in possession. Syn.: consignment inventory, vendor-owned inventory. See: consignment.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Continuous review system

APICS CLTD Learning System © 2024

The inventory level on hand and on order for a continuous review system is checked whenever a change in inventory level occurs. When the reorder point is reached, a restocking order is released. See: fixed reorder cycle inventory model.

Module 6 *Section B: Inventory Control, Strategy, and Policy* **Term** Cycle counting APICS CLTD Learning System © 2024	An inventory accuracy audit technique where inventory is counted on a cyclic schedule rather than once a year. A cycle inventory count is usually taken on a regular, defined basis (often more frequently for high-value or fast-moving items and less frequently for low-value or slow-moving items). [the most effective of these] systems require the counting of a certain number of items every workday with each item counted at a prescribed frequency. The key purpose of [this] is to identify items in error, thus triggering research, identification, and elimination of the cause of the errors.
Module 6 *Section B: Inventory Control, Strategy, and Policy* **Term** Cycle service level APICS CLTD Learning System © 2024	The probability of not having a stockout in any one ordering cycle, which begins at the time an order is placed and ends when the goods are placed in stock. Syn.: measure of service, service level.
Module 6 *Section B: Inventory Control, Strategy, and Policy* **Term** Economic order quantity (EOQ) APICS CLTD Learning System © 2024	A type of fixed order quantity model that determines the amount of an item to be purchased or manufactured at one time. The intent is to minimize the combined costs of acquiring and carrying inventory. [To calculate this find the square root of ((2AS)/(iC)) where A = annual usage in units, S = ordering costs in dollars, i = annual inventory carrying cost rate as a decimal, and C = unit cost.] Syn.: economic lot size, minimum cost order quantity. See: total cost curve.
Module 6 *Section B: Inventory Control, Strategy, and Policy* **Term** Fixed order period system APICS CLTD Learning System © 2024	A method of inventory planning that measures actual inventory levels at regular intervals of time; either an order is placed every time, or a check of inventory levels is made and an order placed if needed. Often the quantity ordered varies from period to period as inventory is restored to a predetermined level. See: fixed order quantity system.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Fixed order quantity system

APICS CLTD Learning System © 2024

An inventory system, such as economic order quantity, in which the same order quantity is used from order to order. The time between orders (order period) then varies from order to order. Syn.: fixed reorder quantity inventory model. See: fixed order period system.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Inventory accuracy

APICS CLTD Learning System © 2024

When the on-hand quantity is within an allowed tolerance of the recorded balance. This important metric usually is measured as the percent of items with inventory levels that fall within tolerance. Target values usually are 95 percent to 99 percent, depending on the value of the item. For logistical operations (location management) purposes, it is sometimes measured as the number of storage locations with errors divided by the total number of storage locations.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Inventory control

APICS CLTD Learning System © 2024

The activities and techniques of maintaining the desired levels of items, whether raw materials, work in process, or finished products. Syn.: material control.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Inventory planning

APICS CLTD Learning System © 2024

The activities and techniques of determining the desired levels of items, whether raw materials, work in process, or finished products (including order quantities and safety stock levels). Syn.: material planning.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Inventory turnover

APICS CLTD Learning System © 2024

The number of times that an inventory cycles, or "turns over," during the year. A frequently used method to compute inventory turnover is to divide the annual cost of sales by the average inventory level. For example, an annual cost of sales of $21 million divided by an average inventory of $3 million means that inventory turned over seven times. Syn.: inventory turns, turnover. See: inventory velocity.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Joint replenishment

APICS CLTD Learning System © 2024

Coordinating the lot sizing and order release decision for related items and treating them as a family of items. The objective is to achieve lower costs because of ordering, setup, shipping, and quantity discount economies. This term applies equally to joint ordering (family contracts) and to composite part (group technology) fabrication scheduling. Syn.: joint replenishment system.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Kanban

APICS CLTD Learning System © 2024

A method of just-in-time production that uses standard containers or lot sizes with a single card attached to each. It is a pull system in which work centers signal with a card that they wish to withdraw parts from feeding operations or suppliers. [This] Japanese word, loosely translated, means card, billboard, or sign, but other signaling devices such as colored golf balls have also been used. The term is often used synonymously for the specific scheduling system developed and used by the Toyota Corporation in Japan. See: move card, production card, synchronized production.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Kitting

APICS CLTD Learning System © 2024

The process of constructing and staging kits.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Lot-for-lot (L4L)

APICS CLTD Learning System © 2024

A lot-sizing technique that generates planned orders in quantities equal to the net requirements in each period. See: discrete order quantity.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Mean absolute deviation (MAD)

APICS CLTD Learning System © 2024

The average of the absolute values of the deviations of observed values from some expected value. [This] can be calculated based on observations and the arithmetic mean of those observations. An alternative is to calculate absolute deviations of actual sales data minus forecast data. This data can be averaged in the usual arithmetic way or with exponential smoothing. See: forecast error, tracking signal.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Min-max system

APICS CLTD Learning System © 2024

A type of order point replenishment system where the minimum (min) is the order point, and the maximum (max) is the "order up to" inventory level. The order quantity is variable and is the result of the max minus available and on-order inventory. An order is recommended when the sum of the available and on-order inventory is at or below the min.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Order fill rate

APICS CLTD Learning System © 2024

1) A measure of customer orders fulfilled from stock, usually expressed as a percentage. In a make-to-stock company, this percentage usually represents the number of items or dollars (on one or more customer orders) that were shipped on schedule for a specific time period, compared to the total that were supposed to be shipped in that time period. 2) In a make-to-order company, usually some comparison of the number of jobs or dollars shipped in a given time period (e.g., a week) compared to the number of jobs or dollars that were supposed to be shipped in that time period. Syn.: customer service ratio, fill rate.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Order point

APICS CLTD Learning System © 2024

A set inventory level where, if the total stock on hand plus on order falls to or below that point, action is taken to replenish the stock. [It] is normally calculated as forecasted usage during the replenishment lead time plus safety stock. Syn.: reorder point, statistical order point, trigger level. See: fixed reorder quantity inventory model.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Overstock

APICS CLTD Learning System © 2024

A supply or quantity of inventory in excess of demand or requirements.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Point of sale (POS)

APICS CLTD Learning System © 2024

The relief of inventory and computation of sales data at the time and place of sale, generally through the use of bar coding or magnetic media and equipment.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Safety lead time

APICS CLTD Learning System © 2024

An element of time added to normal lead time to protect against fluctuations in lead time so that an order can be completed before its real need date. When used, the MRP system, in offsetting for lead time, will plan both order release and order completion for earlier dates than it would otherwise. Syn.: protection time, safety time.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Standard deviation

APICS CLTD Learning System © 2024

A measurement of dispersion of data or of a variable. [It] is computed by finding the differences between the average and actual observations, squaring each difference, adding the squared differences, dividing by n – 1 (for a sample), and taking the square root of the result.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Two-bin inventory system

APICS CLTD Learning System © 2024

A type of fixed-order system in which inventory is carried in two [containers]. A replenishment quantity is ordered when the first [container] (working) is empty. During the replenishment lead time, material is used from the second [container]. When the material is received, the second [container] (which contains a quantity to cover demand during lead time plus some safety stock) is refilled and the excess is put into the working [container]. At this time, stock is drawn from the first [container] until it is again exhausted. Also used loosely to describe any fixed-order system even when physical [containers] do not exist. Syn.: bin reserve system. See: visual review system.

Module 6
Section B: Inventory Control, Strategy, and Policy

Term
Visual review system

APICS CLTD Learning System © 2024

A simple inventory control system where the inventory reordering is based on actually looking at the amount of inventory on hand. Usually used for low-value items, such as nuts and bolts. See: two-bin inventory system.