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 7
Section A: Warehouse Strategy and Tactics

Term
Automated storage/retrieval system (AS/RS)

APICS CLTD Learning System © 2024

A high-density rack inventory storage system that uses vehicles to automatically load and unload the racks.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Bonded warehouse

APICS CLTD Learning System © 2024

Buildings or parts of buildings designated by the US Secretary of the Treasury for storing imported merchandise, operated under US Customs supervision.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Break-bulk

APICS CLTD Learning System © 2024

1) Dividing truckloads, railcars, or containers of homogeneous items into smaller, more appropriate quantities for use. 2) A distribution center that specializes in [these types of] activities. 3) Unitized cargo in bales, boxes, or crates that is placed directly in a ship's holds rather than in containers.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Consolidation

APICS CLTD Learning System © 2024

The grouping of shipments to obtain reduced costs or improved utilization of the transportation function. Consolidation can occur by market area grouping, grouping according to scheduled deliveries, or using third-party pooling services such as public warehouses and freight forwarders. Syn.: freight consolidation. See: milk run.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Cross-docking

APICS CLTD Learning System © 2024

The concept of packing products on incoming shipments so they can be easily sorted at intermediate warehouses or for outgoing shipments based on final destination. The items are carried from the incoming vehicle docking point to the outgoing vehicle docking point without being stored in inventory at the warehouse. [It] reduces inventory investment and storage space requirements. Syn.: direct loading.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Cross-docking warehouse

APICS CLTD Learning System © 2024

A warehouse or portion of a warehouse used for cross-docking. See: cross-docking.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Distribution center

APICS CLTD Learning System © 2024

A location used to store inventory. Decisions driving warehouse management include site selection, number of facilities in the system, layout, and methods of receiving, storing, and retrieving goods.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Private warehouse

APICS CLTD Learning System © 2024

A company-owned warehouse.

Module 7 *Section A: Warehouse Strategy and Tactics* **Term** Public warehouse APICS CLTD Learning System © 2024	The warehouse space that is rented or leased by an independent business providing a variety of services for a fee or on a contract basis. These services can include product inspection, product rating, and repackaging. These facilities are typically located near primary roads, railways, or inland waterways to facilitate rapid receiving and shipping of products. Syn.: duty paid warehouse.
Module 7 *Section A: Warehouse Strategy and Tactics* **Term** Spot stock warehousing APICS CLTD Learning System © 2024	Positioning seasonal items in proximity to the market. When the season ends, these items are either disposed of or relocated to a more centralized location.
Module 7 *Section A: Warehouse Strategy and Tactics* **Term** Throughput APICS CLTD Learning System © 2024	The rate at which the system generates “goal units.” Because [this] is a rate, it is always expressed for a given time period—such as per month, week, day, or even minute. If the goal units are money, [this] is an amount of money per time period. In that case, [it] is calculated as revenues received minus totally variable costs divided by units of the chosen time period.
Module 7 *Section A: Warehouse Strategy and Tactics* **Term** Warehouse APICS CLTD Learning System © 2024	A place to receive, store, and ship materials.

Module 7
Section A: Warehouse Strategy and Tactics

Term
Warehousing

APICS CLTD Learning System © 2024

The activities related to receiving, storing, and shipping materials to and from production or distribution locations.

Module 7
Section B: Warehouse Processes

Term
First expiry first out (FEFO)

APICS CLTD Learning System © 2024

A picking methodology assuring that the usage shelf life of items is optimized. Years ago, first in, first out (FIFO) was satisfactory as the shelf-life days for items often didn't vary and FIFO often coincided with the expiry dates. However, re-testing is frequently done to extend shelf-life dates on some lots or batches, while other lots may have typical shelf-life dates shortened because of quality or processes. Thus, FEFO was introduced by software vendors to provide this picking methodology for use with shelf-life controlled items.

Module 7
Section B: Warehouse Processes

Term
Part-to-picker system

APICS CLTD Learning System © 2024

A materials handling approach for order picking where the pick location is brought to the order picker (e.g., carousels).

Module 7
Section B: Warehouse Processes

Term
Picker-to-part system

APICS CLTD Learning System © 2024

A materials handling approach for order picking in which the picker goes to the product location (e.g., forklifts, order picking trucks).

Module 7
Section B: Warehouse Processes

Term
Picking list

APICS CLTD Learning System © 2024

A document that lists the material to be picked for manufacturing or shipping orders. Syn.: disbursement list, material list, stores issue order, stores requisition.

Module 7
Section B: Warehouse Processes

Term
Replenishment

APICS CLTD Learning System © 2024

Relocating material from a bulk storage area to an order pick storage area and documenting this relocation.

Module 7
Section B: Warehouse Processes

Term
Slip sheet

APICS CLTD Learning System © 2024

Thin sheets of fiberboard or plastic on which product is stacked, used as an alternative to wood pallets because they take up little space in warehouses or shipping containers.

Module 7
Section B: Warehouse Processes

Term
Sorting

APICS CLTD Learning System © 2024

The function of physically separating a homogeneous subgroup from a heterogeneous population of items.

Module 7
Section B: Warehouse Processes

Term
Unit load

APICS CLTD Learning System © 2024

A shipping unit made up of a number of items; bulky material arranged or constrained so the mass can be picked up or moved as a single unit. Reduces material handling costs. Often shrink-packed on a pallet before shipment.

Module 7
Section B: Warehouse Processes

Term
Warehouse receiving

APICS CLTD Learning System © 2024

A key process in warehouse operation that ensures the correct product has been received, in the right quantity, in the right condition, and at the right time.

Module 7
Section B: Warehouse Processes

Term
Warehouse storage

APICS CLTD Learning System © 2024

Using a building or other structure as a planned space for storing goods and materials.

Module 7
Section C: Warehouse Layout

Term
Capacity

APICS CLTD Learning System © 2024

1) The capability of a system to perform its expected function. 2) The capability of a worker, machine, work center, plant, or organization to produce output per time period. Capacity required represents the system capability needed to make a given product mix (assuming technology, product specification, etc.). As a planning function, both capacity available and capacity required can be measured in the short term (capacity requirements plan), intermediate term (rough-cut capacity plan), and long term (resource requirements plan). Capacity control is the execution through the I/O control report of the short-term plan. Capacity can be classified as budgeted, dedicated, demonstrated, productive, protective, rated, safety, standing, or theoretical. See: capacity available, capacity required. 3) Required mental ability to enter into a contract.

Module 7
Section C: Warehouse Layout

Term
Cube utilization

APICS CLTD Learning System © 2024

In warehousing and transportation, a measurement of the utilization of the total storage capacity of a vehicle storage bay, container, type of warehouse equipment, or entire warehouse. The intent is to minimize unused horizontal or vertical space.

Module 7
Section C: Warehouse Layout

Term
Efficiency

APICS CLTD Learning System © 2024

A measurement (usually expressed as a percentage) of the actual output relative to the standard output expected. [This] measures how well something is performing relative to existing standards; in contrast, productivity measures output relative to a specific input (e.g., tons/labor hour). [It] is the ratio of (1) actual units produced to the standard rate of production expected in a time period, or (2) standard hours produced to actual hours worked (taking longer means less [of this]), or (3) actual dollar volume of output to a standard dollar volume in a time period. For example: (1) There is a standard of 100 pieces per hour and 780 units are produced in one eight-hour shift; [this] is 780 ÷ 800 converted to a percentage, or 97.5 percent. (2) The work is measured in hours and took 8.21 hours to produce 8 standard hours; [this] is 8 ÷ 8.21 converted to a percentage, or 97.5 percent. (3) The work is measured in dollars and produces $780 with a standard of $800; [this] is $780 ÷ $800 converted to a percentage, or 97.5 percent.

Module 7
Section C: Warehouse Layout

Term
Honeycombing

APICS CLTD Learning System © 2024

The practice of moving, in an orderly fashion, a pallet of merchandise to an area where the space is not exhausted, resulting in a vacant space not usable for the storage of other items. This is one of the hidden costs of warehousing.

Module 7
Section C: Warehouse Layout

Term
Rated capacity

APICS CLTD Learning System © 2024

The expected output capability of a resource or system. Capacity is traditionally calculated from such data as planned hours, efficiency, and utilization. [This] is equal to hours available × efficiency × utilization. Syn.: calculated capacity, effective capacity, nominal capacity, standing capacity.

Module 7
Section C: Warehouse Layout

Term
Standard hours

APICS CLTD Learning System © 2024

Syn.: standard time.

Module 7
Section C: Warehouse Layout

Term
Standard time

APICS CLTD Learning System © 2024

The length of time that should be required to (1) set up a given machine or operation and (2) run one batch or one or more parts, assemblies, or end products through that operation. Used in determining machine requirements and labor requirements. Assumes an average worker who follows prescribed methods, and allows time for personal rest to overcome fatigue and unavoidable delays. Also frequently used as a basis for incentive pay systems and as a basis of allocating overhead in cost accounting systems. Syn.: standard hours. See: standard.

Module 7
Section C: Warehouse Layout

Term
Task interleaving

APICS CLTD Learning System © 2024

An attempt at reducing/eliminating deadheading (i.e., driving an empty material-handling vehicle). A warehouse management system directs a material-carrying vehicle to put away materials as it goes to pick up other materials.

Module 7
Section C: Warehouse Layout

Term
Utilization

APICS CLTD Learning System © 2024

1) A measure (usually expressed as a percentage) of how intensively a resource is being used to produce a good or service. Compares actual time used to available time. Traditionally, calculated as the ratio of direct time charged (run time plus setup time) to the clock time available. [It] is a percentage between 0 percent and 100 percent that is equal to 100 percent minus the percentage of time lost due to the unavailability of machines, tools, workers, and so forth. See: efficiency, lost time factor, productivity. 2) In the theory of constraints, activation of a resource that productively contributes to reaching the goal. Over-activation of a resource does not productively [use] a resource. See: available time.

Module 7 *Section D: Materials Handling and Warehouse Automation* **Term** Automated guided vehicle system (AGVS) APICS CLTD Learning System © 2024	A transportation network that automatically routes one or more material handling devices, such as carts or pallet trucks, and positions them at predetermined destinations without operator intervention.
Module 7 *Section D: Materials Handling and Warehouse Automation* **Term** Conveyor APICS CLTD Learning System © 2024	A device following a fixed route that has the capability of moving material between points in a facility. This device commonly is used when there is a high volume of flow along the route.
Module 7 *Section D: Materials Handling and Warehouse Automation* **Term** Customs-Trade Partnership Against Terrorism (C-TPAT) APICS CLTD Learning System © 2024	A joint government-business endeavor for imports (not exports) to increase the security of supply chains and US borders. Initiated by US Customs, [this] involves voluntary cooperation of supply chain participants such as importers, carriers, brokers, warehouse operators, and manufacturers. Participants audit their logistical system security and answer a security questionnaire in exchange for a likely (but not guaranteed) faster customs clearing process and fewer inspections.
Module 7 *Section D: Materials Handling and Warehouse Automation* **Term** Fixed-location storage APICS CLTD Learning System © 2024	A method of storage in which a relatively permanent location is assigned for the storage of each item in a storeroom or warehouse. Although more space is needed to store parts than in a random-location storage system, fixed locations become familiar, and therefore a locator file may not be needed. See: random-location storage.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Materials handling

APICS CLTD Learning System © 2024

Movement and storage of goods inside the distribution center. This represents a capital cost and is balanced against the operating costs of the facility.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Pick-to-light

APICS CLTD Learning System © 2024

A pick system that uses software to light up displays at each pick location and determines how much needs to be picked. The pickers use this as their requirement to pull for that particular order to set of orders.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Pick-to-voice system

APICS CLTD Learning System © 2024

A method of performing order-picking activities in a warehouse or distribution center using verbal commands. Syn.: voice-based picking.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Put-to-light

APICS CLTD Learning System © 2024

A process that uses lights to ensure materials are placed in the correct locations. Also used to ensure that picked items are placed correctly.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Random-location storage

A storage technique in which parts are placed in any space that is empty when they arrive at the storeroom. Although this random method requires the use of a locator file to identify part locations, it often requires less storage space than a fixed-location storage method. Syn.: floating inventory location system, floating storage location. See: fixed-location storage.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Software-as-a-service (SaaS)

A software licensing and distribution model that provides access to applications via the internet on a subscription basis. A service provider hosts the application at its data center and customers access it through a web browser. Often referred to as "on-demand" software and used by companies to avoid purchasing, implementing and maintenance costs.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Warehouse automation

The utilization of mechanical or electronic devices to complete tasks related to storing, retrieving, and moving inventory as a substitute for labor resources. Used for cost savings, added security, and to keep human workers out of sensitive environments.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Warehouse management system (WMS)

A computer application system designed to manage and optimize workflows and the storage of goods within a warehouse. It often interfaces with automated data capture and enterprise resource planning systems.

Module 7
Section D: Materials Handling and Warehouse Automation

Term
Yard management system (YMS)

APICS CLTD Learning System © 2024

A system that organizes and directs the traffic of all vehicles in the parking yards located at various industrial buildings like warehouses, distribution centers, and manufacturing plants.

Module 7
Section E: Packaging

Term
Active tag

APICS CLTD Learning System © 2024

A radio frequency identification tag that broadcasts information and contains its own power source. See: radio frequency identification (RFID).

Module 7
Section E: Packaging

Term
Automatic identification and data capture (AIDC)

APICS CLTD Learning System © 2024

Technologies that collect data about objects and then sends the data to a computer without human intervention. Examples include radio frequency wireless devices and terminals, bar code scanners, and smart cards.

Module 7
Section E: Packaging

Term
Automatic identification system (AIS)

APICS CLTD Learning System © 2024

A system that can use various means, including bar code scanning and radio frequencies, to sense and load data in a computer.

Module 7
Section E: Packaging

Term
Batch processing

APICS CLTD Learning System © 2024

1) A manufacturing technique in which parts are accumulated and processed together in a lot. 2) A computer technique in which transactions are accumulated and processed together or in a lot. Syn.: batch production.

Module 7
Section E: Packaging

Term
Dunnage

APICS CLTD Learning System © 2024

The packing material used to protect a product from damage during transport. Some industries use the term to refer specifically to returnable packaging only.

Module 7
Section E: Packaging

Term
Electronic product codes (EPCs)

APICS CLTD Learning System © 2024

Codes that are used with RFID tags to carry information on the product that will support warranty programs.

Module 7
Section E: Packaging

Term
Packaging

APICS CLTD Learning System © 2024

Materials surrounding an item to protect it from damage during transportation. The type of packaging influences the danger of such damage.

Module 7
Section E: Packaging

Term
Pallet

APICS CLTD Learning System © 2024

A platform designed to be loaded with packages and moved by a forklift.

Module 7
Section E: Packaging

Term
Passive tag

APICS CLTD Learning System © 2024

A RFID tag that does not send out data and is not self-powered. See: radio frequency identification (RFID) tag.

Module 7
Section E: Packaging

Term
Radio frequency identification (RFID)

APICS CLTD Learning System © 2024

A system using electronic tags to store data about items. Accessing or retrieving this data is accomplished through a specific radio frequency and does not require close proximity or line-of-sight access. See: active tag, passive tag, semi-passive tag.

Module 7
Section E: Packaging

Term
Semipassive tag

APICS CLTD Learning System © 2024

An RFID tag that sends out data, is self-powered, and widens its range by harnessing power from the reader. See: radio frequency identification (RFID).

Module 7

Section E: Packaging

Term

Unitization

In warehousing, the consolidation of several units into larger units for fewer handlings.

