Practice Test 5 - Results

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Question 1Correct
Multiple approval levels for a small purchase request is an example of which type of waste?
Over-production
Your answer is correct
Over-processing
Inventory
Not using talent
Overall explanation
Lean thinking aims to remove wastes from work processes. Before diving into the 8 wastes, it is important to understand what waste is. Waste is any action or step in a process that does not add value to the customer. In other words, waste is any process that the customer does not want to pay for.

The original seven wastes (Muda) was developed by Taiichi Ohno, the Chief Engineer at Toyota, as part of the Toyota Production System (TPS). The seven wastes are Transportation, Inventory, Motion, Waiting, Overproduction, Overprocessing and Defects. They are often referred to by the acronym ‘TIMWOOD’. The 8th waste of non-utilized talent or ‘Skills’ of workers was later introduced in the 1990s when the Toyota Production System was adopted in the Western world. As a result, the 8 wastes are commonly referred to as ‘TIMWOODS’.

Source: The lean way

Multiple approval levels for a small purchase request is an example of over-processing since this adds more unnecessary work to users and procurement professionals.

Reference: CIPS study guide page 127-129

LO 2, AC 2.3

Question 2Incorrect
XYZ Ltd is a large retailer who offers a range of products with different margins. The warehouse manager suggests that different product groups should have different level of safety stock. The appropriate level of safety stock is typically determined by...?
Correct answer
Choosing the level of safety stock that assures a given service level
Your answer is incorrect
Carrying sufficient safety stock so as to eliminate all stockouts
Taking the square root of the economic order quantity
Expected stockout cost multiplies with product margin
Overall explanation
Safety stock is the stock held as a contingency or insurance against disruption or unexpected demand. Holding safety stock reduces the risks of stockouts, when an organisation is unable to meet an order or continue production due to lack of finished goods or input materials.

For single items, an extra investment in inventory (higher levels of safety stock) will always increase customer service levels. Conversely, higher service levels imply larger

quantities of safety stocks and an increased investment in inventory. *(Procurement and Supply Chain Management - 9th Edition)*

However, high levels of safety stocks also increase the inventory cost. There must be a balance between inventory costs and customer service. Thus, calculating the should-be safety stock based on a determined service level has long been recommended by many professionals.

Reference: CIPS study guide page 104-105

LO 2, AC 2.2

Question 3 **Correct**

A supplier delivers large quantities of inventory to its customer's store, but only charges for the goods as and when they are used. This can be described as...?

Multi-stage inventory

Multi-echelon stock

Components inventory

Your answer is correct

Consignment stock

Overall explanation

Consignment stock is stock legally owned by one party, but held by another, meaning that the risk and rewards regarding to the said stock remains with the first party while the second party is responsible for distribution or retail operations. Ownership of consignment stock is passed only when the stock is used (issued or sold in the case of a shop). Unused stock in a warehouse may be returned to the supplier when it concerns standard manufactured products. With customer specific items, agreements concerning returning products, should be negotiated.

Reference: CIPS study guide page 31

LO 1, AC 1.1

Question 4 **Incorrect**

A pharmaceutical firm offers a new drug called NC-01. After analysing the market, the firm realises that the demand is largely variable. But they still have to forecast the customer demand for the next production cycle. The new drug NC-01 is best described as which type of item?

Indirect demand

Overhead items

Your answer is incorrect

Dependent demand

Correct answer

Independent demand

Overall explanation

Dependent demand is the requirement for stock item which is directly related to and therefore dependent upon the rate of production (examples are: raw materials, components, energy)

Independent demand is the requirement for stock item which is not directly related to, and is therefore independent of rate of production. Although independent demand is called thus, it can still be influenced by economic factors external to the demand-supply model such as general consumer sentiment and consumers' available disposal income. However, businesses that need to predict the number of products with independent demand needed to sate their customers have it easier than businesses that must calculate the demand for products with dependent demand because there are fewer factors to consider.

In this scenario, the new drug is finished good which is dependent on the demand of the market, and the firm needs to forecast before initiating the production process. The item is independent from rate of production, therefore, it must be independent demand item.

Reference: CIPS study guide page 95-98

LO 2, AC 2.1

Question 5 **Correct**

What is the basis for objective forecasting techniques?

1. Opinions

2. Figures

3. Facts

4. Jugdement

1 and 2 only
3 and 4 only
1 and 4 only
Your answer is correct
2 and 3 only

Overall explanation
Subjective forecasting uses qualitative methods (surveys, opinions) which relay on perception and opinion. Objective forecasting uses quantitative methods (facts and figures). Both methods have to make assumption about how closely (or not) the future will resemble the present and the past. Forecasting is never exact.

Reference: CIPS study guide page 111-112

LO 2, AC 2.3

Question 6 Correct

The purchase-order lead time is the...?

Your answer is correct

Period between placing an order and its delivery

Period between receiving a customer order and producing the products

Period between receiving a customer order and delivering the items

Time needed to correct errors in the defective products

Overall explanation

Purchase order lead time (POLT) refers to the number of days from when a company places an order for production inputs it needs, to when those items arrive at the manufacturing plant.

LO 2, AC 2.3

Question 7 Incorrect

Which of the following are examples of holding costs? Select TWO that apply

The cost of decommission

The cost of ordering

Your selection is incorrect

The cost of maintenance

Your selection is correct

The cost of insurance of goods

Correct selection

The spoiled price

Overall explanation

Holding costs are those associated with storing inventory that remains unsold. These costs are one component of total inventory costs, along with ordering and shortage costs.

A firm's holding costs include the price of goods damaged or spoiled, as well as that of storage space, labor, and insurance.

Question 8 Correct

Toll Group has thousands of end-of-life IT assets that need to be disposed of. The senior management of Toll Group is largely concerned about sustainability in waste management, especially electronic waste. Before selecting a supplier to manage the process, the procurement team is required to assess the environmental risks regarding disposal of the assets. Risk assessment is basically based on the measurement of which factors?

1. Impact

2. Reward

3. Surveillance

4. Likelihood

2 and 3 only
1 and 3 only
2 and 4 only
Your answer is correct
1 and 4 only

Overall explanation
All risk management processes follow the same basic steps, although sometimes different jargon is used to describe these steps. Together these 5 risk management process steps combine to deliver a simple and effective risk management process.

Step 1: Identify the Risk. You and your team uncover, recognize and describe risks that might affect your project or its outcomes. There are a number of techniques you can use to find project risks. During this step you start to prepare your Project Risk Register.

Step 2: Analyze the risk. Once risks are identified you determine the *likelihood and consequence of each risk*. You develop an understanding of the nature of the risk and its potential to affect project goals and objectives. This information is also input to your Project Risk Register.

Step 3: Evaluate or Rank the Risk. You evaluate or rank the risk by determining the risk magnitude, which is the combination of likelihood and consequence. You make decisions about whether the risk is acceptable or whether it is serious enough to warrant treatment. These risk rankings are also added to your Project Risk Register.

Step 4: Treat the Risk. This is also referred to as Risk Response Planning. During this step you assess your highest ranked risks and set out a plan to treat or modify these risks to achieve acceptable risk levels. How can you minimize the probability of the negative risks as well as enhancing the opportunities? You create risk mitigation strategies, preventive plans and contingency plans in this step. And you add the risk treatment measures for the highest ranking or most serious risks to your Project Risk Register.

Step 5: Monitor and Review the risk. This is the step where you take your Project Risk Register and use it to monitor, track and review risks.

Reference:

- What are the 5 Risk Management Steps in a Sound Risk Management Process?

- CIPS study guide page 192-193

LO 3, AC 3.3

Question 9 Correct

In just in time production system, when is an upstream production triggered?

When the production workers are idle

Your answer is correct

When downstream operations summon the upstream production

When the inventory level reaches the reorder point

After the management team forecasts the future demands

Overall explanation

Along with Jidoka, Just-in-time (JIT) production is one of the pillars of the two Toyota Production System. It is a production method that fundamentally changed the way large-scale production occurred in the 20th century, and is the basis for Lean Manufacturing (Lean for short), which is the school of thought many modern companies have modeled themselves after.

JIT production is often called a pull system because instead of using traditional push production where scheduling is done based on historical data and demand forecasting, production is scheduled based on actual customer orders. Rather than predicting demands from customers, the JIT method requires that actual customer demand exists. Production doesn't begin before an order triggers it. This system not only reduces the amount of extra inventory, but also reduces the amount of work in progress at one time.

Reference:

- Just-in-Time Production

- CIPS study guide page 122-127

LO 2, AC 2.3

Question 10 Correct

Which of the following should be considered in calculating Total Cost of Ownership?

Your answer is correct

Purchase price

Break even point

Gross profit margin

Classification of fixed cost and variable cost

Overall explanation

The total cost of ownership (TCO) is the purchase price of an asset plus the costs of operation. Looking at the total cost of ownership is a way of assessing the long-term value of a purchase to a company or individual.

TCO can be calculated in several ways depending on the type of product or service concerned (software solutions, car fleets, etc.). What are the components of TCO? The Total Cost of Ownership is generally calculated as the sum of these 8 types of costs:

1. **Purchase price**: cost price and supplier margin;

2. **Cost incurred**: transport, packaging, customs duties, payment terms;
3. **Cost of acquisition**: procurement department operations;
4. **Cost of ownership**: stock management, depreciation cost;
5. **Cost of maintenance**: spare parts, servicing;
6. **Cost of usage**: use value, operation, services;
7. **Cost of poor quality**: deadline compliance, non-compliance processes;
8. **Cost of disposal**: recycling, resale, destruction.

Question 11 **Correct**

Which of the following is another name for scheduled (routine) maintenance?

Your answer is correct

Preventative maintenance

Predictive maintenance

Run to breakdown

Corrective maintenance

Overall explanation

There are different types of maintenance that organizations use to increase the uptime of their assets and utility of their facilities. Based on an organization's budget, amount of resources, level of combined experience, and maintenance goals, one or more maintenance types are used.

Proactive types of maintenance

Preventive maintenance

Preventive maintenance is the most popular type of proactive maintenance. To start conducting preventive maintenance tasks (PMs), an organization does not need to purchase new technology if it already has a CMMS. This is not the case with predictive maintenance which requires condition monitoring sensors and new software integrations. However, with preventive maintenance, the organization runs the risk of over-scheduling maintenance tasks because tasks are scheduled based on time rather than actual conditions. That said, preventive maintenance achieves 12% to 18% cost savings over reactive maintenance.

Predictive maintenance

Predictive maintenance (PdM) is what savvy maintenance teams aspire to have or are already implementing. The major barrier to PdM is the time it takes to implement rather than the cost of the technology itself. For instance, a vibration sensor that can identify imbalance, misalignment, and resonance issues only costs around $200. But the time it takes to install, integrate with other maintenance software, and adopt a culture around is not time that all organizations are willing to allocate. For those that do allocate the time, PdM provides an 8% to 12% cost savings over preventive maintenance.

Condition-based maintenance

Condition-based maintenance (CBM) is at the core of predictive maintenance but, on its own, does not rely on technology to determine the condition of an asset like PdM does. For instance, a manager may instruct an operator to monitor the condition of an asset and submit a work request when a specific condition is met. This approach may, or may not be, as reliable as predictive maintenance. An organization that has highly-trained operators may spot hazardous conditions better than an organization using PdM technology that doesn't know what to look for.

Scheduled maintenance

Scheduled maintenance includes work that is scheduled on a calendar for completion. The most common type of scheduled maintenance is calendar-based preventive maintenance tasks. These are scheduled well in advance of completion. For instance, an asset with a monthly PM has twelve instances of scheduled maintenance in a given year. However, just because maintenance is scheduled does not mean it's planned. Planned maintenance implies that a maintenance planner or other type of maintenance worker has fully planned for parts, materials, skills, and other resources to be available during the scheduled time window.

Planned maintenance

Planned maintenance is work that's prepared for in advance of it taking place. According to an UpKeep survey, it's also the most popular key performance indicator (KPI) to track. A high planned maintenance percentage indicates that a maintenance team will have resources available to complete work for the time/day the work is scheduled for. Having a high planned maintenance percentage also helps boost other maintenance KPIs like schedule compliance. More planned maintenance means more successful completion of scheduled maintenance.

Routine maintenance

Routine maintenance is a form of time-based maintenance and preventive maintenance, though some organizations differentiate between routine maintenance and preventive maintenance. They use the latter for smaller tasks (i.e. cleaning) performed at higher frequencies (hourly, daily) and the former for larger tasks (i.e. inspections) performed at lower frequencies (weekly, monthly, annually). Additionally, routine maintenance is performed by operators, janitors, and other staff member while preventive maintenance is performed by technicians. Non-routine maintenance includes maintenance that is performed reactively or only when needed based on an asset's conditions.

Reactive types of maintenance

Emergency maintenance

Emergency maintenance occurs when an asset requires immediate attention in order to keep a facility operational or safe. This is the most reactive and intrusive type of maintenance as it pulls technicians away from other jobs and lowers schedule compliance. In extreme circumstances, emergency maintenance can set an organization back days depending on the scope of the repair, available parts, and the asset's level of importance. To reduce the amount of emergency maintenance that is both unplanned and unscheduled, organizations adopt various forms of proactive maintenance.

Corrective maintenance

Corrective maintenance is inherently part of emergency maintenance because, when there is an emergency, something needs corrected or fixed. In this way, corrective maintenance is mostly reactive. However, it can also be proactive. If an asset with a condition monitoring sensor detects an issue, a work order is created and a technician is sent to correct it. Similarly, preventive maintenance is considered corrective maintenance if there is an issue to fix. This is rare though as PMs are often conducted when an asset is in good working order.

Other types of maintenance

Deferred maintenance

Deferred maintenance includes repairs and inspections that are put into a backlog due to limited budget and resources. While deferring maintenance saves money up front, the costs of not performing important maintenance compounds at 7% annually. Rising costs come from fines resulting from missed inspections and unscheduled downtime that brings production to a standstill. By far, deferred maintenance and emergency maintenance are the least desired types of maintenance.

Total productive maintenance

Total productive maintenance (TPM) is the broadest type of maintenance that targets more than the assets that need maintained. It also aims to improve employee satisfaction and overall morale in the workplace, specifically in manufacturing plants. TPM does this by increasing overall equipment effectiveness (OEE) and the amount of planned maintenance. More planned work means more workers have the resources they need to do their job, which means higher levels of satisfaction. TPM also leverages machine operators to participate in maintenance and take ownership of their equipment.

Reference:

Types of Maintenance - Upkeep

CIPS study guide page 158-159

LO 3, AC 3.1

Question 12 **Correct**

How can XYZ Ltd, a US retailer, cope with the increased storage space needed for finished goods during peak seasons, when the demand for Thanksgiving and Christmas decorations goes up?

1. Maximising aisle width

2. Keeping high buffer stock throughout the year

3. Maximising flexibility in warehouse layout

4. Installing mezzanine floor

1 and 3 only
2 and 4 only
Your answer is correct
3 and 4 only
1 and 2 only

Overall explanation

Possible solutions to the high irregular or seasonal demand problems are listed below:

• Take advantage of the height of the warehouse

- Mezzanine floor

- High racking system (increase storage capacity but require high-reach material handling equipment)

• Eliminate dead stock or inventory

• Improve material flow

• Improve storage location method

• Consider using aisle space during demand peak

• Narrow aisles between racks (require narrow handling equipment)

• Carousel-type storage system

• Auto-storage and retrievals system (ASRS)

Reference: CIPS study guide page 22

LO 1, AC 1.1

Question 13 **Incorrect**

Which of the following statements about radio frequency identification (RFID) is ***NOT*** true?

RFID is a powerful technology for tracking the movement of goods throughout the supply chain

Correct answer

RFID systems transmit radio signals over extreme long distances.

RFID tags contain a microchip in which data of an item are saved

Your answer is incorrect

RFID systems can be complied with GS1 standards

Overall explanation

RFID tags have very limited range. The following table was extracted from Wikipedia:

RFID frequency bands[14][15]

Band	Regulations	Range	Data speed	ISO/IEC 18000 section	Remarks	Approximate tag cost in volume (2006) US $
120–150 kHz (LF)	Unregulated	10 cm	Low	Part 2	Animal identification, factory data collection	$1
13.56 MHz (HF)	ISM band worldwide	10 cm–1 m	Low to moderate	Part 3	Smart cards (ISO/IEC 15693, ISO/IEC 14443 A, B). ISO-non-compliant memory cards (Mifare Classic, iCLASS, Legic, Felica ...). ISO-compatible microprocessor cards (Desfire EV1, Seos)	$0.50 to $5
433 MHz (UHF)	Short range devices	1–100 m	Moderate	Part 7	Defense applications, with active tags	$5
865–868 MHz (Europe) 902–928 MHz (North America) UHF	ISM band	1–12 m	Moderate to high	Part 6	EAN, various standards; used by railroads[16]	$0.15 (passive tags)
2450–5800 MHz (microwave)	ISM band	1–2 m	High	Part 4	802.11 WLAN, Bluetooth standards	$25 (active tags)
3.1–10 GHz (microwave)	Ultra wide band	Up to 200 m	High	Not defined	Requires semi-active or active tags	$5 projected

RFID tags can be used to do the following:

- Track individual items

- Track boxes of products, cages of products and pallet

- Track containers with multiple loads

- Locate equipment within a building

- Trigger alarms should equipment or stock be removed without authorisation.

RFID tags are made of three different components: an RFID chip, which is an integrated circuit (IC), an antenna, and a substrate. RFID chips are very small integrated circuit incorporating a small memory capability - many are smaller than 2mm square and 2mm thick. Despite its size, many can hold 2000 characters of data. Many

retailers simply use the tag as a thick label and print both sides with product information and perhaps a barcode.

It is important to note that there are multiple standards in use for RFID - some of these are standardised for industries but there are also national standards in operations. These standards need to be investigated before investment as not all readers work with all cards. GS1 is a non-for-profit organisation which make the standards for barcodes and RFID.

Reference: CIPS study guide page 49-50

LO 1, AC 1.2

Question 14 **Correct**

What is the term for transferring goods directly from incoming to outgoing vehicles without storing them?

Automation

Tracing and tracking

Decommissioning

Your answer is correct

Cross-docking

Overall explanation

Cross-docking is the practice of unloading goods from inbound delivery vehicles and loading them directly onto outbound vehicles. By eliminating or minimizing warehouse storage costs, space requirements and inventory handling, cross-docking can streamline supply chains and help them move goods to market faster and more efficiently.

Cross-docking usually takes place in a dedicated docking terminal in a warehouse, where inbound goods are first received at a dock and sorted according to their final destinations. They are then moved to the other side of the dock via forklift, conveyor belt or other equipment and loaded on outbound vehicles.

Cross-docking works best with products that need to be transported quickly, such as food, that have already been sorted and labeled for customers, do not need quality inspections or have steady demand.

Reference:

- CIPS study guide page 16

- Cross-docking

LO 1, AC 1.1

Question 15 **Correct**

Company XYZ is a candy manufacturer. Company XYZ makes a batch of 1,000 Christmas candy canes that are no longer edible after December 31. Company XYZ is able to sell 750 canes of the batch, but the other 250 are sitting in the warehouse. December 31 comes, and these candy canes is no longer sell-able. The batch of 250 candy canes belongs to which type of inventory?

Stockout

Your answer is correct

Obsolete inventory

Redundant inventory

Buffer stock

Overall explanation

Obsolescent stock is stock, usually finished goods, which is in good condition and satisfactory working but for which demand is irreversibly falling towards zero. Once this demand reaches zero the stock can be considered 'obsolete'. It cannot be used or sold in its current state. Food ingredients (like candy canes) which are out of date are another example.

Reference: CIPS study guide page 86-88

LO 2, AC 2.1

Question 16 **Correct**

What is the purpose of using the ‘delphi method’?

Your answer is correct

Forecasting demand

Controlling products

Valuing stock

Classifying products

Overall explanation

Delphi method is a structured forecasting technique using a panel of experts and a number of rounds of questioning. Responses are shared after each round and the experts encouraged to reconsider their own responses. It is intended to achieve a consensus view.

Reference: CIPS study guide 109-111

LO 2, AC 2.3

Question 17 **Correct**

Manufacturing resources planning (MRP II) was developed from material requirement planning (MRP). Which of the following is the additional input that is available in MRP II but does not appear in MRP?

Your answer is correct

Finance

Bill of materials

Inventory records

Master production schedule
Overall explanation
MRP I was some of the first business software to be widely adopted during the 1970s. Manufacturers sought these systems in order to improve efficiency and accuracy when it came to basic processes such as production scheduling and inventory management.

By the 1980s, manufacturers realized they needed software that could also tie into their accounting systems and forecast inventory requirements. Enter MRP II, which included these integrations in addition to all the capabilities offered by MRP I. Enterprise resource planning (ERP) software features—which we'll cover later on—are included in the following table for comparison.

Reference:

- MRP vs. MRP II: What's the Difference?

- CIPS study guide page 118-119

LO 2, AC 2.3

Question 18 **Correct**
Trevino Ltd is a facility management company which is managing 12 high-rise buildings accross the city. Maintenance of those building accounts for a significant part of Trevino's budget. The company often outsource this service to third party providers. Which of the following can assist Trevino in managing the performance of these suppliers?
Just In Time (JIT)
Stock turn rate
Your answer is correct
Service Level Agreement (SLA)
Total cost of ownership
Overall explanation
Basically, a maintenance contract is a service contract. To manage supplier performance, the buyer can use SLA. The use of SLA in a maintenance contract is to define the expectations and obligations of both parties regarding the quality and timeliness of the maintenance service. For example, an SLA may specify how quickly the service provider will respond to a service request, how often they will perform preventive maintenance, what metrics they will use to measure their performance, and what remedies they will offer if they fail to meet the SLA terms. An SLA can help both parties avoid disputes and ensure customer satisfaction.

LO 3, AC 3.1

Question 19Correct
Before buying a capital asset, an organisation should weigh the costs and benefits of the asset. What factors are included in this analysis? Select TWO that apply.
Dividends paid
Shareholders' equity
Your selection is correct
The cumulative cash flows generated by the asset
Current liabilities in the balance sheet
Your selection is correct
The cost of the asset
Overall explanation
A cost-benefit analysis is a process businesses use to analyze decisions (such as capital investment). The business or analyst sums the benefits of a situation or action and then subtracts the costs associated with taking that action.

A cost-benefit analysis (CBA) should begin with compiling a comprehensive list of all the costs and benefits associated with the project or decision.

The costs involved in a CBA might include the following:

- Direct costs would be direct labor involved in manufacturing, inventory, raw materials, manufacturing expenses.

- Indirect costs might include electricity, overhead costs from management, rent, utilities.

- Intangible costs of a decision, such as the impact on customers, employees, or delivery times.

- Opportunity costs such as alternative investments, or buying a plant versus building one.

- Cost of potential risks such as regulatory risks, competition, and environmental impacts.

Benefits might include the following:

- Revenue and sales increases from increased production or new product.

- Intangible benefits, such as improved employee safety and morale, as well as customer satisfaction due to enhanced product offerings or faster delivery.

- Competitive advantage or market share gained as a result of the decision.

An analyst or project manager should apply a monetary measurement to all of the items on the cost-benefit list, taking special care not to underestimate costs or overestimate benefits. A conservative approach with a conscious effort to avoid any subjective tendencies when calculating estimates is best suited when assigning a value to both costs and benefits for a cost-benefit analysis.

Finally, the results of the aggregate costs and benefits should be compared quantitatively to determine if the benefits outweigh the costs. If so, then the rational decision is to go forward with the project. If not, the business should review the project to see if it can make adjustments to either increase benefits or decrease costs to make the project viable. Otherwise, the company should likely avoid the project.

Reference:

- Cost-Benefit Analysis (Investopedia)

- CIPS study guide page 175

LO 3, AC 3.2

Question 20 **Correct**

XYZ Ltd wants to rent new office space abroad. To save on overhead costs, it prefers leasing over buying new office. In a lease contract, what costs are usually paid by the lessee?

1. Disposal costs

2. Rentals

3. Operating costs

4. Vendor selection costs

1, 2 and 4
1, 2 and 3
1, 3 and 4
Your answer is correct
2, 3 and 4

Overall explanation

A **lease** is a contractual arrangement calling for the lessee (user) to pay the lessor (owner) for use of an asset. Property, buildings and vehicles are common assets that are leased. Industrial or business equipment is also leased. Since the lessee does not own the asset, it is not responsible for disposing the assets, and therefore, disposal costs are not attributable to the lessee. The lessee usually incurs rentals and operating costs. Finally, a company should treat the lease the same as other contracts, which they must qualify the supplier.

Reference: CIPS study guide page 144-147

LO 3, AC 3.1

Question 21 **Correct**

What are some advantages of grouping items into unit loads for handling and storage? Select TWO that apply.

Unit loads must be placed on pallets

Minimise space utilisation

Increase transport time of each item

Your selection is correct

Reduce handling cost of one unit

Your selection is correct

Safer handling

Overall explanation

The concept of a unit load is to create a stable and secure, easy-to-move group of stock that is fast to load and unload from vehicles.

The advantages of unit load concepts are as the following:

• More items can be handled at the same time, thereby reducing the number of trips required and, potentially, reducing handling costs, loading and unloading times, and product damage.

• Enables the use of standardized material handling equipment.

Reference: CIPS study guide page 60-61

LO 1, AC 1.3

Question 22 **Correct**

Does having only one warehouse always result in the lowest total cost?

Your answer is correct

No, fewer warehouse may lead to increasing transport costs

Yes, because warehouse overheads are fully utilised

Yes, because the operation cost for warehouse reaches minimal level

No, more warehouses will reduce the cost of storage

Overall explanation

The total cost of storage consists of two different costs:

- **The cost of warehouses:** each one has a different cost, and each has the cost of stock-holding and stock management included

- **The transport costs:** the total transport cost reduces as further warehouses mean shorter final delivery to the customers.

Depending on each situation, the optimal number of warehouses varies. Generally, more facilities will increase the cost of warehouses while reduce the transport costs and vice versa.

Reference: CIPS study guide page 6-7

LO 1, AC 1.1

Question 23 **Correct**

Should all types of inventories be stored within a warehouse?

Yes, indoor environment will extend the life of all those inventories

No, all of them must be dispersed to the customer

Yes, this practice is compatible with Lean principles

Your answer is correct

No, some products can be placed within a stockyard

Overall explanation

A warehouse is a covered building that can store large quantities of products. However, some products may not be suitable for warehouse storage. They may be too large for the warehouse space (e.g., construction cranes, ships) or they may not require protection from the weather (e.g., precast concrete, sand, stone, coal). These products can be stored in an open area called a stockyard.

LO 1, AC 1.1

Question 24 **Correct**

Which of the following streamlines the supply chain process by reducing the storage time of goods and handling costs in warehouse?

Fan-shaped layout

Consignment stocking

Your answer is correct

Cross-docking

Return logistics

Overall explanation

The correct answer is:

Cross-docking.

This logistics strategy streamlines the supply chain process by reducing the storage time of goods in a warehouse and handling costs. It involves the direct transfer of products from inbound to outbound transportation, with little or no storage time in between. This method is especially beneficial for items that require quick delivery times or have a high turnover rate, as it minimizes the need for warehousing and reduces transportation and labor costs.

Reference: CIPS L4M7 study guide page 16 / The new syllabus 2024

LO 1, AC 1.1

Question 25 Correct

Company A started an accounting period with 700 units of stock. During that period, they sold 900 units and produced 400 units. How many units of stock did they have at the end of the period?

1100

300

500

Your answer is correct

200

Overall explanation

Closing stock = Opening stock + Purchases - Sales

In this case, the opening stock is 700 units, the purchases are 400 units, and the sales are 900 units. Plugging these values into the formula, we get:

Closing stock=700+400−900

Closing stock=200

Therefore, the correct answer is **200 units**. This means that Company A had 200 units of stock left at the end of the period.

Question 26 Correct

The buying organization often calculates Total Cost of Ownership in which of the following?

Purchase raw materials

Purchase office supplies

Your answer is correct

Purchase the capital assets

Purchase a design service

Overall explanation

Total cost of ownership is a complex calculation which requires lots of information from different stakeholders. It is suitable for large purchase only.

The capital asset has a long life-time usage so the buyer will incur a lot of costs during their lifetime. It's necessary to calculate TCO to ensure that the buyer will make a right decision before making a purchase.

Question 27 Incorrect

Which of the following best describes available inventory (also known as inventory position)?

Correct answer

The amount of inventory on hand plus the amount of inventory on order

The amount of inventory on hand in excess of expected demand

The amount of inventory on order only

Your answer is incorrect

The amount of inventory on hand

Overall explanation

Available inventory (or Inventory position - IP) is equal to inventory on-hand plus quantity on order minus backorder (if any)

Reference: CIPS study guide page 117

LO 2, AC 2.3

Question 28 Incorrect

Is it possible for RFID tags to function on or inside metal products or surfaces?

Yes, all RFID tags can be used in every environmental conditions

Correct answer

Yes, some technologies allow RFID tags to work on metal or within metal products

No, RFID tags only work with plastic products

Your answer is incorrect

No, metal surface reflects the radio wave and thus interferes the operations of RFID tags

Overall explanation

Mounting or embedding RFID tags on metal can be tricky. Metal surfaces reflect energy emitted from RFID readers and create interference for RFID tag antennas, which means the tag isn't able to receive power and transmit information; however, specific RFID tags will work around metal surfaces. RFID companies have patented technology that allows RFID to work when attached to metal surfaces and even embedded within metal products. As long as you choose the correct RFID equipment for your environment and application, you won't need to worry about interference from metal.

Reference: CIPS study guide page 49-50

LO 1, AC 1.2

Question 29 Correct

An ISBN is a unique code that identifies a specific edition or format of a book published by a certain publisher. It is an international standard system. ISBN is an example of...?

Own product code system

Harmonized system

Your answer is correct

Industry standard code

Check digit

Overall explanation

The **International Standard Book Number** (**ISBN**) is a numeric commercial book identifier which is intended to be unique. Publishers purchase ISBNs from an affiliate of

the International ISBN Agency. ISBN is standardised by ISO 2108:2017. ISBN is an example of industry standard code as it applies to commercial books around the world.

Check digits are additional numbers or characters added to codes that a computer uses to verify the number is valid. The intention is to reduce the likelihood of miskeying an item and hitting an alternative live item. More often, a system is devised which a computer can calculate using combination of numbers.

Own product code system: an organisation will use its own product code system. This has the advantage that the organisation can construct a code that is effective and fits with its software and variety of items covered.

The **Harmonized Commodity Description and Coding System**, also known as the **Harmonized System** (**HS**) of tariff nomenclature is an internationally standardized system of names and numbers to classify traded products. It came into effect in 1988 and has since been developed and maintained by the World Customs Organization (WCO) (formerly the Customs Co-operation Council), an independent intergovernmental organization based in Brussels, Belgium, with over 200 member countries.

Reference: CIPS study guide page 38-39

LO 1, AC 1.2