Latest Version: 6.0

Question: 1

XYZ Ltd has been adopting MRP system for years. The system helps the company improve efficiency greatly and generates huge cost-savings. However, MRP system is only limited to production process management and XYZ management team would like to have better insights into resources required across the organisation as a whole. Which software system would help XYZ management team achieve the above objective?

A. ERP
B. MPS
C. P2P
D. MRP II

Answer: A

Explanation:
Enterprise resource planning (ERP) is the integrated management of main business processes, often in real time and mediated by software and technology. ERP provides an integrated and continuously updated view of core business processes using common databases maintained by a database management system. ERP systems track business resources—cash, raw materials, production capacity—and the status of business commitments: orders, purchase orders, and payroll. The applications that make up the system share data across various departments (manufacturing, purchasing, sales, accounting, etc.) that provide the data. ERP facilitates information flow between all business functions and manages connections to outside stakeholders.
Manufacturing resource planning (MRP II) is defined as a method for the effective planning of all resources of a manufacturing company. Ideally, it addresses operational planning in units, financial planning, and has a simulation capability to answer what-if questions and extension of closed-loop MRP. This is not exclusively a software function, but the management of people skills, requiring a dedication to database accuracy, and sufficient computer resources. It is a total company management concept for using human and company resources more productively.
A master production schedule (MPS) is a plan for individual commodities to be produced in each time period such as production, staffing, inventory, etc. It is usually linked to manufacturing where the plan indicates when and how much of each product will be demanded. This plan quantifies significant processes, parts, and other resources in order to optimize production, to identify bottlenecks, and to anticipate needs and completed goods. Since a MPS drives much factory activity, its accuracy and viability dramatically affect profitability.
Procure-to-pay (P2P) is a term used in the software industry to designate a specific subdivision of the procurement process. The procure-to-pay systems enable the integration of the purchasing department with the accounts payable (AP) department. Some of the largest players of the software industry agree on a common definition of procure-to-pay, linking the procurement process and financial department.
LO 2, AC 2.3

Question: 2

Which of the following should be considered when an organisation plans for disposing obsolescent and redundant stock? Select TWO that apply.

A. ABC analysis
B. Financial costs
C. Economic order quantity
D. Environmental issues
E. Takt time

Answer: B,D

Explanation:
If the planning and mitigation measures fail and redundant or obsolete stock is identified, it needs to be removed from the current inventory location as quickly as possible. There are some methods to deal with these types of stock. The worst case scenario is disposal to landfill, which is inadvisable if it can be avoided, both from environment point of view and the financial costs of such disposal.
For example, the problem of obsolete pesticides remains extremely serious and urgent. Many of the stocks identified continue to deteriorate thereby giving rise to an ever escalating source of severe pollution and posing a threat to human health, the environment and development in particular. To reduce the impact of obsolete pesticides on environment, FAO initiated a project in Yemen in which a total of 262 tonnes of obsolete pesticides were removed from 20 different sites and successfully disposed of between March and June 1996. The major field operation was completed in six weeks during which period almost all obsolete pesticides were brought to a central location and subsequently shipped to the United Kingdom for incineration.
Reference: CIPS study guide page 89
LO 2, AC 2.1

Question: 3

The following are examples of scheduled maintenance except...

A. Oil changes and regular servicing
B. Overhauling of machine
C. Repair signage damage from a recent storm
D. Cleaning of tank

Answer: C

Explanation:
Scheduled maintenance is any repair and upkeep work performed within a set timeframe. It details when given maintenance tasks are performed and by whom. Scheduled maintenance may occur at repeating intervals or in response to a work request.

Overhauling of machine means that the machine is regularly checked and corrupted parts are replaced if needed.
Cleaning of tank and Oil changes also occur at time intervals as scheduled
So the correct answer is Repair signage damage from a recent storm
Reference: CIPS study guide page 158-163
LO 3, AC 3.1

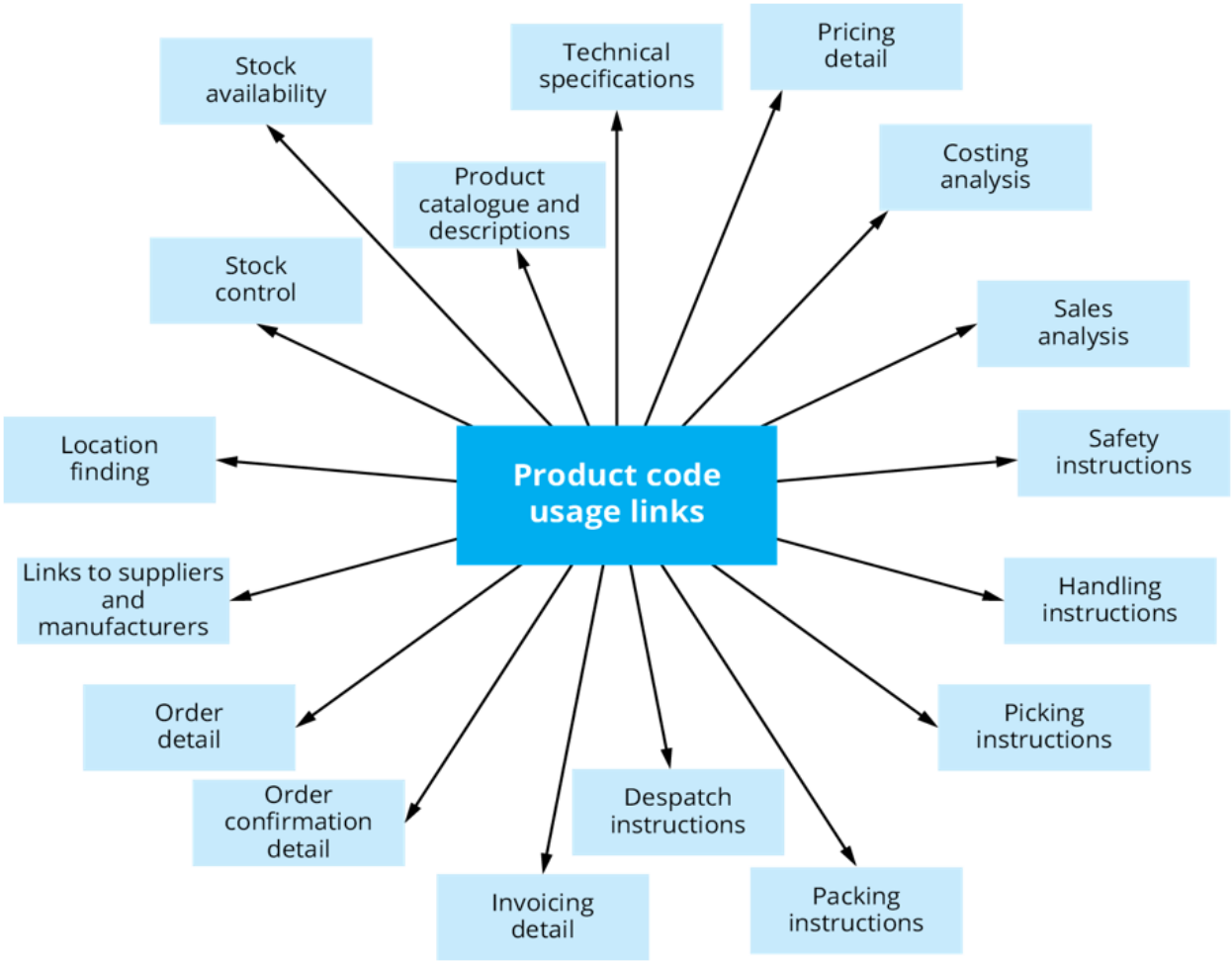
Question: 4

Which of the following are features of product codes?
1. Product codes link to products' characteristics
2. A product code must comply with international standards
3. Many internal processes use the product codes as facilitators
4. There are no duplicate product codes

A. 1 and 3 only
B. 2 and 4 only
C. 3 and 4 only
D. 1 and 2 only

Answer: A

Explanation:
The product code is often the key to obtaining documentation relating to products.



Product codes are often use to link to internal processes. Some computerised inventory systems trigger alerts when specific items or volume are ordered - this could be an out-of-stock warning or potential volume errors.

In many cases, an organisation will use its own product code system. The organisation constructs a code that is effective and fits with its software and the variety of items covered. So these codes may or may not comply with any international standards (such as GS1 specifications, ISO standards, etc.). As organisations make up the code themselves, the codes may look identical to others. For example, SKU414675 reveals that it is used for many items, including the following:

- A UK wholesaler's six-pack of branded cola
- An Australian snack food
- UK flower seeds
- An Italian desk sold in Japan
- A Brazilian light fitting

Reference: CIPS study guide page 33-42

LO 1, AC 1.2

Question: 5

Which of the following costs does the EOQ minimise?

A. Total cost of carrying stock
B. Total cost of ordering inventory
C. Total cost of safety stock
D. Total cost of annual inventory cost

Answer: A

Explanation:
Economic order quantity (EOQ) was developed in 1913 by Ford W. Harris and has been refined over time. The formula assumes that demand, ordering, and holding costs all remain constant. The EOQ minimizes the total annual inventory cost.
EOQ formula is as follow:

Formula and Calculation of Economic Order Quantity (EOQ)

The formula for EOQ is:

$$Q = \sqrt{\frac{2DS}{H}}$$

where:

- $Q = \text{EOQ units}$

$D = \text{Demand in units (typically on an annual basis)}$

$S = \text{Order cost (per purchase order)}$

$H = \text{Holding costs (per unit, per year)}$

LO 2, AC 2.3

Question: 6

A supermarket calculates that the average holding cost for an item is $1.50 per cubic meter per day. A beer pallet which has volume of 0.5 cubic meter will be stored for 5 days. What is the holding cost of this beer pallet?

A. $4.00
B. $4.50
C. $4.25
D. $3.75

Answer: D

Explanation:
The holding cost per day of the beer pallet is equal to 1.50/2=0.75
The beer pallet is stored for 5 days, the total holding cost is: 0.75*5=3.75.
LO 2, AC 2.2

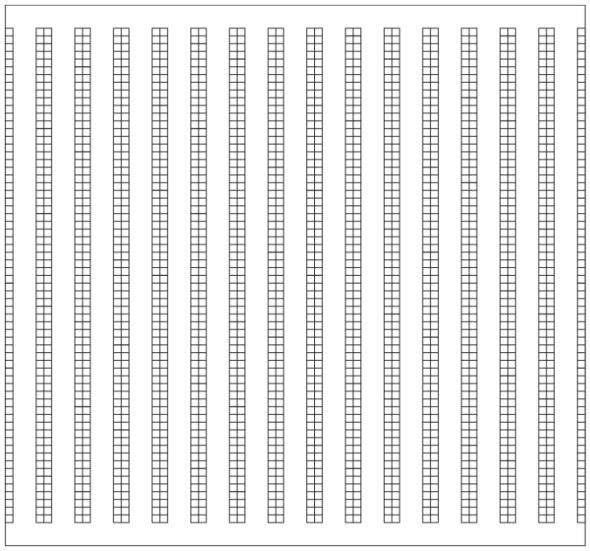
Question: 7

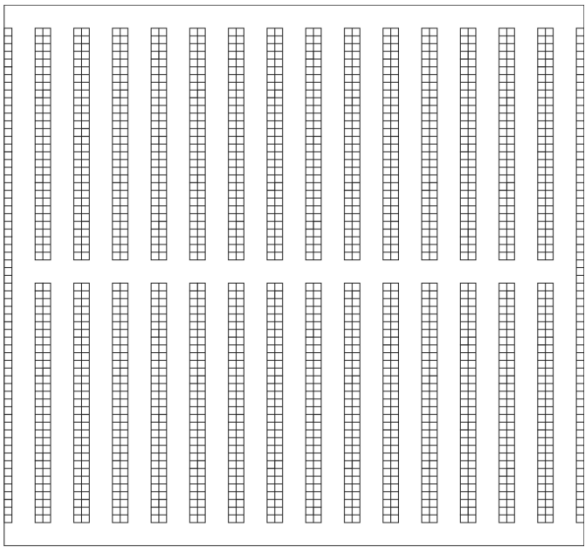
Which of the following are warehouse layouts that allow the cross aisle to meet picking aisle at angles different from 90 degrees?
1. 'Fan' shaped layout
2. Herringbone-shaped layout
3. U-shape layout
4. L-shape layout

A. 2 and 3 only
B. 1 and 2 only
C. 3 and 4 only
D. 1 and 3 only

Answer: B

Explanation:
In a traditional warehouse, storage racks are arranged to create parallel picking aisles, perhaps with one or more cross aisles to allow workers to move quickly between picking aisles. This structure forces workers to travel rectilinear distances (north-south and east-west) to picking locations.





Kevin R. Gue and Russell D. Meller proposed alternative aisle designs:

- The 'Fan' shaped layout (or Flying V). This layout maintains parallel picking aisles, but allows the cross aisle to take on a different shape. If travel begins and ends at the bottom of the V, Gue and Meller expected distance to retrieve a single pallet is 10% less in this warehouse than in an equivalent traditional design.
- The Herringbone-shaped layout (or commonly referred as Fishbone layout) combines the vertical picking rows of a traditional warehouse with a second set of horizontal picking rows, divided by a V-shaped diagonal alley crossing the entire warehouse. This simple modification to the typical warehouse design allows employees (e.g. a forklift driver) to increase travel speed between picking locations. Efficiency gains achieved through a layout reconfiguration would reduce picking cost up to 23% compared to an equivalent warehouse using a traditional configuration.

Reference
Aisle Design - Kevin Gue
LO 1, AC 1.1

Question: 8

Which of the following best describes the term 'periodic review'?

A. Items are reviewed and orders placed depending on requirements
B. Items are reviewed when the price is at its lowest
C. Items are reviewed when the Kanban is triggered
D. Items are reviewed as part of an imprest system

Answer: D

Explanation:
Fixed-Time Period System (or Periodic Review system) is the inventory management system in which inventory is checked in fixed time periods, T, and the quantity ordered varies.
The imprest system is a form of financial accounting system. The most common imprest system is the petty cash system. The base characteristic of an imprest system is that a fixed amount is reserved, which after a certain period of time or when circumstances require, because money was spent, it will be replenished.
So the correct answer should be Items are reviewed as part of an imprest system
LO 2, AC 2.3

Question: 9

Which of the following are most likely to be the purposes of packing and packaging?
1. To bring the product cost down
2. To protect the product
3. To improve the product recognition
4. To test the product durability

A. 1 and 4 only
B. 2 and 3 only
C. 1 and 2 only
D. 3 and 4 only

Answer: B

Explanation:
It would be really convenient if we could just hand our products directly to the customers, but that's not possible. Packaging needs to be done for several reasons. Here are some of the most prominent ones:

1. Safety: Packaging is used to keep your product safe from external factors. It also prevents human tampering. If you want to sell fruit juice, you just can't hand it over to customers. It should be packaged in something, like a stand up pouch.
2. Brand visibility: You provide the best product in your category and you want your customers to remember that. How else will you do that without using the right kind of creative food packaging?
3. Bundling it together: If you want to sell an ounce of something, you need to create a packet so that the right amount is bundled together.
4. Theft prevention: If you sell your product loose, there are chances that the retailer doesn't give the right amount to the customer and saves some part for himself. There are other cases too where theft can be done in the absence of packaging.
Apart from these four, there are many other reasons why you should package your products.
Reference:
- What Is the Purpose of Packaging?
- CIPS study guide page 62
LO 1, AC 1.3

Question: 10

Which of the following is essential to effective implementation of just-in-time?

A. No need for smoothing production
B. Larger warehouse for larger amount of inventory
C. Strong links between the suppliers and the buying organisation
D. Regular machine changeovers

Answer: C

Explanation:
For JIT manufacturing to succeed, companies must have steady production, high-quality workmanship, glitch-free plant machinery, and reliable suppliers.
JIT production systems cut inventory costs because manufacturers do not have to pay storage costs. Manufacturers are also not left with unwanted inventory if an order is canceled or not fulfilled.
Reference:
- Just in Time (JIT)
- CIPS study guide page 122-124
LO 2, AC 2.3

Question: 11

What is the different between gross material requirements plan (gross MRP) and a net material requirements plan (net MRP)?

A. The net MRP includes the amount of inventory on hand, whereas the gross MRP does not
B. The gross MRP is mostly paper-based, but the net MRP must be computerised

C. The gross requirement doesn't take taxes into account, whereas the net requirement includes the tax considerations
D. The gross MRP includes consideration of available inventory, whereas the net MRP does not

Answer: D

Explanation:
Material requirement planning (MRP) is a production planning and material (inventory) control system used in manufacturing. Objectives of MRP are to ensure materials are available for production while minimising inventory and to plan production and procurement activities.
MRP software combines the master production schedule, the bill of materials and the inventory information to work out the net requirements (net MRP) of what to purchase or produce and when.
These net requirements are worked out using the following equation:
Net requirements = Total requirements - Available inventory
Where:
Total requirement = Gross requirements (gross MRP)
Available inventory = Inventory on hand + Units on order
In the other words, Gross MRP = Net MRP + Available inventory, so the answer should be The gross MRP includes consideration of available inventory, whereas the net MRP does not
LO 2, AC 2.3

Question: 12

What is the stock turn for a store holding products to the value of £250,000 with annual sales of these products amounting to £1,000,000?

A. 4
B. 0.25
C. 0.4
D. 10

Answer: A

Explanation:
Calculating Inventory Turnover (Stock Turn)
As with a typical turnover ratio, inventory turnover details how much inventory is sold over a period. To calculate the inventory turnover ratio, cost of goods (COGS) is divided by the average inventory for the same period.1
Cost of Goods Sold ÷ Average Inventory or Sales ÷ Inventory
In this exercise, the stock turn equal to sales divided by inventory, or 1,000,000:250,000 = 4.
Reference: CIPS study guide page 131
LO 2, AC 2.3

Question: 13

ANTA Logistics is looking for a place to build a new, integrated cold chain facility, Chill Hub, to its customers. Which of the following need to be considered when selecting the location of the new facility? Select TWO that apply.

A. Availability of the building
B. Ease of objective forecasting on inventory level
C. Availability of product coding system
D. Volume of obsolescent stock
E. Accessibility to roads and highways

Answer: A,E

Explanation:
There are many different factors that must be considered when assessing warehouse and stock locations:
• Operating cost of the location or area
• Availability and suitability of warehouses
• Availability of manpower or labour
• Proximity to suppliers and customers
• Access to transport infrastructure (domestic and international)
• The political and security environment of the location
LO 1, AC 1.1

Question: 14

The amount of inventory available at the start of an accounting period is known as...?

A. Closing stock
B. Work-in-progress
C. Opening stock
D. Buffer stock

Answer: C

Explanation:
Opening stock is the starting amount of inventory that a business has at a fixed moment in time. This could be the start of a financial year, another reporting period or ad hoc stocktake. The concept of opening stock mush not be confused with raw materials
Closing stock is the inventory held at the end of the period under consideration. Thus, the closing stock of one period is automatically the opening stock for the next.
Work in progress is the stock part-way through a manufacturing process; in the service sectors the term is also used for anything between order and delivery.
Buffer stock (safety stock) is the stock held as a contingency or insurance against disruption or unexpected demand.

LO 2, AC 2.1

Question: 15

With D is the annual demand (units), S is cost per order, H is annual carrying cost per unit; the formula for Economic Order Quantity is....?

A. √(D*S/3H)
B. √(D*S*H)
C. √(D*S/2H)
D. √(2D*S/H)

Answer: D

Explanation:

Formula and Calculation of Economic Order Quantity (EOQ)

The formula for EOQ is:

$$Q = \sqrt{\frac{2DS}{H}}$$

where:

- Q = EOQ units
  D = Demand in units (typically on an annual basis)
  S = Order cost (per purchase order)
  H = Holding costs (per unit, per year)

LO 2, AC 2.3