



ORDINARY UNIVERSITY EXAMINATIONS 2015/2016
EXAMINATION FOR Y2S1
DEGREE OF PURCHASING AND SUPPLIES MANAGEMENT

COURSE CODE: HPS 2212

COURSE TITLE: INVENTORY MANAGEMENT

DATE: 22ND April, 2016

TIME: 2 HOURS

INSTRUCTION TO CANDIDATES

Question one (1) is compulsory

Answer **any other** (2) questions

HPS 2212: INVENTORY MANAGEMENT

QUESTION ONE

a) Management team of company has invited you in their meeting to elaborate for them terms as put down by specialists

- i) Lead time
- ii) Demand forecasting
- iii) Cost of ordering process
- iv) Purchase order
- v) Physical Verification

b) The company's key role is to manufacture pain killers tablets.

The production manager has quoted annual material demand at 50,000 tons per annum.

The cost price per ton of raw materials is quoted by the suppliers at 5,000/= .The delivery cost per batch is 200/= while stock holding is 5% per annum of stock value.

- i) As a consultant advice the company on most economic units to be purchased at one time. (6 marks)
- ii) You have gone ahead to recommend adoption of Just-In-Time model of planning. Justify your decision. (4mrks)

QUESTION TWO

a) Discuss why your stores department should properly maintain the listed documents on receipt of materials.

- (i) Mode of transport
- (ii) Name & address of suppliers.

(4mrks)

b). Examine why physical verification of stores is key in stores department.

(4mrks)

c). Discuss four key benefits derived from computer application in inventory management.

(12mrks)

QUESTION THREE

(a) You are approached by a manufacturing company to advise them on size and layout of their storage house. Briefly discuss the storage functions you would take into account to enable the management conceptualize correct storage facility. (10mrks (b)

b) The same company wishes to adopt an appropriate inventory planning between material requirement planning (MRP) and Just- in- Time (JIT) model. Briefly compare and contrast the models to allow members understand their functioning.

(10mrks)

QUESTION FOUR.

From your managerial perspective discuss time utility, storage of surplus, price stabilization, minimization of risk and financing as functions of ware house.

(20mks)

MARKING SCHEME

QUESTION ONE

a)).Definition of terms

i). **Lead time**- Period between ordering time of material and when the material is received in the organization.

ii). **Demand forecasting** – scientific foreseeing of needed or required inventory. Usually based on records of past consumption, production plan, or normal consumption per unit of output.

iii). **Cost of ordering process**:- A fixed cost independent of number of units ordered. It includes fees for placing order, clerical costs related, invoice processing accounting or communication.

iv). **Purchase order** – order for procuring material given to supplier. It gives details and specifications of items to be procured.

v). **Physical verification**: the process of ascertaining correctness of quality & quantity of goods lying in the store on a given date- emphasize laid on counting, weighing or otherwise.

b)

i). Units to be purchased at one time

$$EOQ = \sqrt{\frac{2cd}{ip}}$$

C= Delivery cost per batch

D= Annual demand for product

P= Cost price per item

I = Stock holding cost per annum

c)= 200

d)= 50,000

p) = 5000

i) = 5%

$$\sqrt{\frac{2(200)(50,000)}{5000}}$$

(5% of 5000)

$$\sqrt{\frac{2(200)(50,000)}{250}}$$

$$\sqrt{80,000}$$

=282.8 ie 283 units

ii). The model is respond to actual production orders

- The Company will achieve a balance between financial performance as gauged by cash flow and certainty of a stable supply chain.
- The orders will dictate the amount of tablets and time production should take place.
- The tablets will be available in quantity needed at a time required.
- The model is appropriate since the production usage is repetitive.

QUESTION TWO

a).Benefits of maintaining proper records on material receipt

(i) Mode of transport

- Helps store controller decide on lead time of particular items in relation to replenishment
- Helps in decision regarding investment pattern..

(ii) Name & address of suppliers.

- Helps stores in suggesting possible suppliers whenever suggestions are sought for purposes of future supplies.
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b). Examine why physical verification of stores is key in stores department

- Ensures maintenance of correct stock records
- Ensures correctness of the value of stock appearing in balance sheet at close of the year
- Detects fraud, loss, deviation etc. if any
- Points out weaknesses if any & suggests improvement.
- Have moral check on staff of the department

(1mrk each 4mrks maximum)

c). Benefits of computer application in inventory management

- Information is accurate - This allows good decision making
- Accessible and timely information.- for good decision management needs accessible & timely information.
- Right kind of information – decision makers require to record valuable data to use in decision making
- Information sharing – computer applications enable fast information sharing with the relevant departments or personnel. This gives a common view of information among the stakeholders.
- Increased efficiency. - Ability to minimize errors and establishment of tailor made softwares for quick analysis.

QUESTION THREE

(a) Storage functions

- To hold commodities produced seasonally but consumed throughout the year
 - To hold commodities produced throughout the year but consumed seasonally
 - To meet demand created by purposeful activity of producer.
 - To increase quality of certain products
 - For overcoming unfavorable price situations or for speculative purposes
- To hold stock at point convenient for regional distribution

b)

MRP	JIT
-Focuses production of finished goods based on forecast requirement	Focuses production on actual order
-MRP is a comprehensive system of raw materials	Reduces amount of raw materials & goods at hand
Manpower based on forecast order	Reduces carrying cost & likelihood of damaged
-MRP has ability to successfully organize production of each component.	-Embraces consent of dependent demand

	-Relies on timely delivery of exact raw Materials.
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QUESTION FOUR

. Risk minimization, time utility, price stabilization, storage of surplus and financing as functions of warehouse:

- Time utility

Warehouse bridges time gap between production & consumption

Helps make good available whenever required i.e. regularly produced but seasonally, consumed goods, or seasonally produced & regularly consumed.

- Risk minimization

Provision of safe custody of goods

Warehouse goods are insured hence minimum losses from damage fire theft etc.

Perishables are stored in cold rooms

Price stabilization: Goods are stored when supply exceeds. Till supply matches demand

Storage of surplus: Goods produced in anticipation of demand are preserved till demanded

Financing: Owners can borrow money against security of goods stored in the warehouse.