GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Business

Integrated Bachelor of Business Administration - Master of Business Administration
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem IX - MBOP6003 - Material Management and Inventory Control

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Define the concept of MRP-II.	K1	(2)
2)	Analyse Pareto chart and its applications in inventory management.	K2	(4)
3)	Develop the concept of a Continuous review system of inventory management.	K2	(6)
4)	Illustrate the difference between the production terms of MRP-I and MRP-II.	K3	(9)
5)	If a factory does not supply the customer directly, from where does demand on the factory come? Demonstrate whether it is independent or dependent demand	K3	(9)
6)	Grocery stores are an example of well-controlled inventory and replenishment systems. Appraise in your own example the application level of safety stock, the two-bin system, and the periodic review system, including target level, review period, replenishment period, and order quantity.	K5	(10)
7)	Explain the basic modes of carriers for transportation. Organise the four basic cost elements in transportation?	K4	(12)
8)	Khadi Griha Udyog is a manufacturer of the Swadist brand of spices. A 100gm pack of its chilli powder is priced at Rs 50 for its suppliers. One of its supplier purchases 20,000 packs per annum. The supplier incurs an order of Rs 200 per order and a carrying cost of 10% of the unit value. Khadi offers discounts for the following ranges of bulk purchases to its suppliers: 5% for 5,000-7,999 units and 10% for 8,000 and more units. Assess which discount option is best one for its suppliers along with EOQ from the total cost point of view?	K5	(15)

9) ABC is a manufacturer of the Lazzat brand of spices. A 200gm pack of its chilli powder is priced at Rs 100 for its suppliers. One of its supplier purchases 20,000 packs per annum. The supplier incurs and OC of Rs 250 per order and a CC of 10% of the unit value. ABC offers discounts for the following ranges of bulk purchases to its suppliers: 1% for 4,000-6,999 units and 2% for 7,000 and more units. Choose, which discount option is best one for its suppliers along with EOQ from the total cost point of view. K5 (15)

10) CASE: ACME WATER PUMPS The Acme Water Pump company has a problem. The pumps are fairly expensive to make and store, so the company tends to keep the inventory low. At the same time, it is important to respond to demand quickly, since a customer who wants a water pump is very likely to get one from a competitor if Acme doesn't have one available immediately. Acme's current policy to produce pumps is to produce 100 per week, which is the average demand. Even this is a problem, as the production manager has pointed out, since the equipment is also used for other products and the lot size of 300 would be much more efficient. He said he is currently set up for water pump production for the next week and states he has capacity available to produce 300 at a time next week. The following lists the forecasts and actual customer orders for the next 12 weeks: The president of Acme has said that he wants to consider using a formal MPS with ATP logic to try to meet demand more effectively without a large impact on inventory. Acme has decided to use a demand time fence at the end of week 3 and has also found out that its current inventory is 25 units. Assume Acme will use the MPS lot size of 300 and that it will produce the first of those lots in week1. Discussion Questions 1. Develop a master schedule using the information above. 2. A customer has just requested a major order of 45 pumps for delivery in week 5. What would you tell the customer about having such an order? Why? What, if anything, would such an order do to the operation? K6 (18)