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Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

# POST GRADUATE DIPLOMA IN MANAGEMENT (2020-22) END TERM EXAMINATION (TERM -IV)

Subject Name: **Production Planning and Control**Sub. Code: **PGO-06**Time: **02.30 hrs**Max Marks: **60** 

#### Note:

All questions are compulsory. Section A carries 10 marks:5 questions of 2 marks each, Section B carries 30 marks having 3 questions (with internal choice question in each) of 10 marks each and Section C carries 20 marks one Case Study having 2 questions of 10 marks each.

## **SECTION - A**

Attempt all questions. All questions are compulsory.

CO<sub>1</sub>

 $2 \times 5 = 10 \text{ Marks}$ 

- **Q. 1** (A): What is Master Production Scheduling?
- Q. 1 (B): What do you understand by sequencing and its importance in production control?
- Q. 1 (C): What do you understand by process planning and process mapping?
- Q. 1 (D): What is the difference in scheduling and routing in production planning and control?
- Q. 1 (E): Explain the Terms: Lead Time, Stock Out, Buffer Stock, Inventory Carrying Cost?

### **SECTION - B**

#### $10 \times 3 = 30 \text{ Marks}$

All questions are compulsory (Each question has an internal choice. Attempt any one (either A or B) from the internal choice)

**Q. 2: A.** What is the role sample testing in quality checks and record keeping through process documentation and how they play a critical role in the Production control? Explain with example of Pharma Industry. (**CO2**)

or

- **Q. 2: B.** "ERP implementation in Production Planning and control provide integrated single view in real time for process and cost optimization". Justify this statement with your explanation.
- **Q. 3: A.** What is capacity planning? Is it a strategic decision discusses with the example of bi-cycle manufacturing unit? (CO 3)

Or

Q. 3: B. Explain how EOQ and ABC analysis method improves inventory control.

What are its advantages and disadvantages?

IFFCO produces fertilizer to sell to whole-sellers. One raw material- calcium nitrate is purchased from a nearby supplier at price Rs 22.50 per ton for making fertilizer. IFFCO estimates annual demand of 5750000 tons of calcium nitrate next year. The annual carrying cost for this material is 40% of the purchase price and ordering cost is Rs. 595 per order. Calculate:

- 1. What is the most economical order quantity?
- 2. How many orders will be placed per year?
- 3. Calculate the time between the orders?
- **Q. 4: A.** What is Line Balancing? Why it is used? Explain with example. (CO2)

or

**Q. 4: B.** What is ISO? Bring out the benefits from getting ISO 9000 Certificate? Justify your answer with examples.

#### **SECTION - C**

Read the case and answer the questions

 $10 \times 02 = 20 \text{ Marks}$ 

## Q. 5: Case Study: Metro Cash and Carry- Material Resource planning with Technology

Metro Group represents a hypermarket chain network, founded in 1964 by Otto Beisheim at Mulheim-Ruhr nearby Dusseldorf in Germany as nowadays is being named Metro Cash & Carry. The first hypermarket based on Cash & Carry system represented a new way of selling products, where the customers could purchase their needed goods by paying cash money and removed by merchants. At the moment Metro Group owns 670 hypermarkets Cash & Carry in 29 countries where are operating over 100,000 employees. Metro C & C entered the Indian wholesale market by opening two stores in Bangalore (Year 2003) and thereafter opened a new store in Hyderabad in 2006. Company has built 20 stores in past 9 years.

## **Order Management**

The goal of supply chain at Metro is to efficiently handle thousands of orders, shipments and deliveries and ensure that goods arrive at the right place at the right time. A supply chain consists of three types of entities: customers, a producer, and the producer & suppliers. Supply Chain Management plays an important role in our high-performance logistics system and enhances capacity to supply food and non-food products on a daily basis with consistent high quality, diversity and freshness.

## **Material Resources planning and logistics**

Logistics Administrator is the overall boss of the logistics department. He has every sort of order generated through systems. The floor manager and the store manager can make the order demand in system. After that the order demand is delivered to supplier automatically though systems.

In Metro, the sales person informs the supervisor about the order of the goods. The supervisor then forwards the request to store manager and the floor manager. Both can generate the demand on systems. After all this process the data is send to the MIS department where they gen order demand list using an GMS and after that demand list is send to different suppliers. Reports are formed on daily basis. In Metro ordering is of two types i.e. Head office ordering and store ordering. In head office, through this they keep their control over the demand. In store ordering the floor manager or the store manager can generate the demand order. Software used in Metro Cash & Carry is Global Management System for the generating orders through systems. It gives up to information is based on MIS e.g. operation, stock management etc. Reports are formed on daily basis. Metro receives payment from these customers digitally and ships the orders using GPS-enabled trucks, so that customers can track their shipment.

On a pilot basis, In financial year 2016-17 it has launched OPD (order, payment, delivery) for traders and kiranas to facilitate online order placement and door-step delivery. It has provided around 500 grocery stores with digital point-of-sale terminals, which can replace the paper-and-pen method of keeping books. This helps them print GST-compliant bills, manage inventory and working capital, and a detailed record of purchases by customers. Last year, Metro launched OPD (order processing, payment, collection and delivery), its version of an Omni-channel strategy to reach as many small business owners

- **Q. 5:** (A). What are the key initiatives being taken by Metro Cash and Carry to improve on Material Resources planning?
- **Q. 5:** (**B**). Critically evaluate the current processes of the Metro Cash & Carry and What is role of technology in processes of Metro Cash and Carry? How it is getting impacted after using technology?

**Mapping of Questions with Course Learning Outcome** 

Question Number	COs	Marks Allocated
Q. 1:	CO1	10 marks
Q. 2:	CO2	10 marks
Q. 3:	CO3	10 marks
Q. 4:	CO2	10 marks
Q. 5:	CO4	20 marks