

- Instruction : 1] Selection I is compulsory.
2] Figures to the right indicates the marks.
3] Answer any Three questions from section II.
4] Use of simple calculator is allowed.

Section - I

Q.1 Answer the following questions in brief. **10**

- 1) What are the logistics functions performed by packaging.
- 2) Core competency and third party logistics in Global Business Environment.
- 3) Safety stock
- 4) Elements of customer's service.
- 5) Inventory functionality and principles.

Q.2 Case Study.

MS Excellent Dashboard Pvt. Ltd. (EDPL) is situated at Gurgaon New Delhi. The company supplies dashboard assembly as a 4 PL supplier to Maruti Udyog Ltd. Since past 3 years. There one number of components in the dashboard like speedometer, level gauge etc. EDPL purchases these individual components from various suppliers and assembles them at their work for onword supplier to MUL. One of the major components namely "starter switch" is always the problem. Since the EDPL does not observed any systematic inventory control methods in their purchasing activities, they just order the quantity as and when the demand arises. As the product is not available off the shelf, many a times delays occurred in arranging and assembled dashboard to MUL. This in turn results into a financial loss to EDPL due to penalties imposed by MUL as per the agreements, towards delay in supply of dashboard assembly.

The information gathered from EDPL shows that the annual demand of the item, starter switch in 5000 numbers. The unit price of the item is Rs. 50 each. The inventory caring cost and ordering cost is 20% and Rs.40 per order respectively.

Questions :-

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- 1) Explain the Role of fourth party logistics in the above case.
- 2) How EDPL can avoid financial penalties Impased by MUL?
- 3) Calculate Economic order quantity (EOQ) for the item under reference, by using the available information.

CODE : 514 A

Section - II

- Q.3** Explain the various factors deciding the number of warehouses. Also discuss the basic layout and design objectives of a warehouse. 10
- Q.4** Draw and explain "order processing cycle" 10
- Q.5** Critically examine the application of ABC Analysis in Inventory Management. Give a numerical Example. 10
- Q.6** M/s Empire industries has manufacturing plants located at Mumbai, Delhi, Kolkata having monthly availability of the products of 1000, 500, 500 units respectively. Their warehouses are situated at Bangalore, Pune & Indore and having individual monthly requirements of 500, 500, and 700 units respectively.

The transportation cost (in Rupees per unit) for shipping the products from plants to warehouse are as follows :

| Plants | warehouse | | |
|---------|-----------|------|--------|
| | Bangalore | Pune | Indore |
| Mumbai | 100 | 25 | 150 |
| Delhi | 150 | 100 | 175 |
| Kolkata | 125 | 60 | 130 |

Determine the initial feasible solution for the above problem, by applying VAM and Calculate Total Transportation cost. 10

- Q.7** Write short notes on any Two 10
- a) Palletisation in material handling
 - b) mission based costing
 - c) Process of outsourcing
 - d) Cross docking.
