GANPAT UNIVERSITY

B.TECH SEM. IV - (IT/CE/EC/MC/ME/BM&I/CIVIL/EE) ENGINEERING
CBCS REGULAR EXAMINATION April - June 2015
2OS401 SUPPLY CHAIN MANAGEMENT-PLANNING

Time: 3 Hours   Total Marks: 70

Instructions:

1). All questions are **compulsory**.
2). Figures to the **right** indicate full marks.
3). Answers to the two sections must be written in **separate** answer books.
4). Assume all necessary data.

SECTION I

Que-1	A	What is supply chain? Explain it with example.	(03
	B	Describe the decision phases in a supply chain.	(04
	C	Explain role of following drivers in Supply Chain and Competitive Strategy.	(04
		1. Transportation 2. Information	

OR

Que- 1	A	Explain following in term of facility related metrics	(03
		1. Capacity 2. Utilization 3. Production cost per unit 4. Product variety 5. Processing time	
	B	Describe cycle view of supply chain management.	(04
	C	List and explain the three basic steps for achieving strategic fit.	(04

Que-2	A	Explain factors influencing distribution network design.	(04
	B	Give difference between inbound transportation cost and outbound transportation cost.	(04
	C	Alpha industry needs 1500units per year of component which will be used in its main product. The ordering cost is RS.125 per order and the carrying cost per unit per year is 20% of the purchase price per unit. The purchase price per unit is RS 75 find economics order quantity , number of order per year and time between successive orders	(04

OR

Que-2	A	Explain following in terms of network design	(04
		1.tariffs and tax incentives 2.exchange rate and demand risk 3.political factor	
	B	Write a short note on:- Manufacturer storage with direct shipping	(04
	C	The annual demand of an item in the stores of a foundry is 9000 units. Its annual carrying cost is 15% of the purchase price of the item per year. Where the purchase price is RS20 per unit. The ordering cost is Rs 15 per order. Presently the order size of the item is the average monthly demand of that item. Find the economic order quantity and compare its cost with the present ordering system and find the corresponding cost advantage if exists.	(04

Que-3 **Attempt all**

    A Explain the product life cycle.   (04)

    B Describe Supply chain for Dell computer. What decisions they have made to be successful in (04)
the PC market.

    C Write a short note on economics order quantity   (04)

SECTION II

Que-4 **A** Describe different measures of product availability.   (03)

        B Explain the role of pricing and revenue management in a supply chain   (04)

        C Summarize the basic step in the decision tree analysis methodology   (04)

OR

Que-4 **A** Explain risk of using a third party.   (03)

        B Define outsourcing. Differentiate sourcing with outsourcing.   (04)

        C Write short note on: discounted cash flows   (04)

Que-5 **A** Explain short and long term forecasting with advantage and disadvantage, (06)

        B Explain collective opinion method for sales forecasting in detail. (06)

OR

Que-5 **A** What is inventory? Explain role of inventory in detail. (06)

        B Explain ABC analysis for inventory management (06)

Que-6 **Attempt all**

    A The annual demand for a component is 7200units. The carrying cost is Rs. 500/unit/year. (06)
The ordering cost is Rs.1500 per order and the shortage cost is Rs.2000/unit/year. Find the
optimal values of economics order quantity , maximum inventory, maximum shortage
quantity, cycle time (t) , inventory period(t_1) and shortage period (t_2)

    B Explain factor affecting plant location in detail. (06)

END OF PAPER