PGDM (RM), 2021-2023
Supply Chain Management
RM-109
Trimester I, End Term Exam: October 2021

Time: 1 hrs 30 mins.
MM :30

Roll No: _____

Section -A (15 marks)

Instruction: Attempt 3 questions from Section-A and Section-B is compulsory

CILO-1

A1a. Discuss the significance of postponement strategy in supply chain with suitable examples. (5)

OR

A1b. Designing supply chain network is complicated decision making task. In light of this, discuss some of the barriers and enablers of global supply chain network design. (5)

CILO-2

A2a. Write a short note on the following:

1. Three-way matching
2. Profit leverage effect (5)

OR

A2b. What are the basic assumptions of Economic Order Quantity model? Derive the formula for it. (5)

CILO-3

A3a. Explain "tragedy of the commons" in the context of supply chain sustainability with examples. Discuss some "mutually coercive" mechanisms to encourage sustainability. (5)

OR

A3b. The monthly forecast and production days are given as follows:

Month	**Jan**	**Feb**	**March**	**April**	**May**	**June**
Demand	900	700	800	1200	1500	1100
Days	22	18	21	21	22	20

If the manufacturer maintains a constant workforce of eight people, and uses overtime whenever necessary to meet demand. Use the given cost information to evaluate the total cost of this plan.

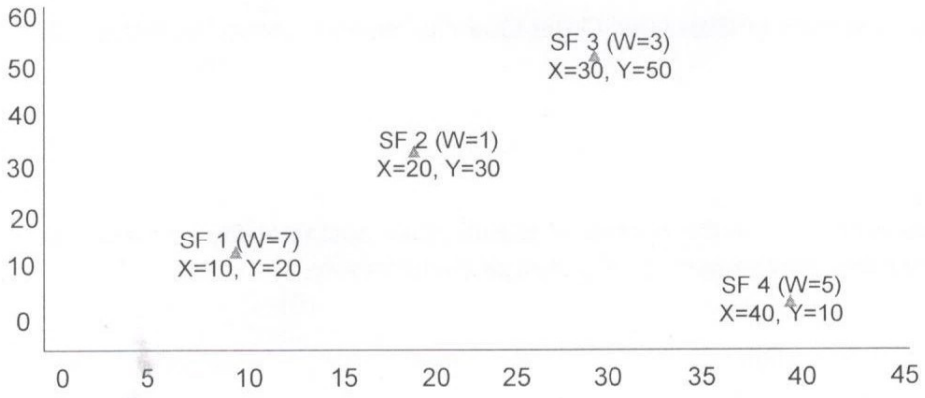
Please Turn Over

Cost Information	
Inventory carrying cost	$ 5 *per unit per month*
Average pay rate	$ 5 *per hour* ($40 *per day*)
Overtime pay rate	$ 17 *per hour* (*above 8 hours per day*)
Labor-hours to produce a unit	1.6 *hours per unit*

(5)

SECTION B-Case Study (15 marks)

An electronic company, BBI Pvt. Ltd., focusses to maximize efficiency in the supply chain. It manufacturing a number of electronic goods and currently expanded its operations to provide after sale services to its customers through its four service facilities. Due to large sales and thus more number of service requests existing facilities are overloaded to provide timely services to their customers. This results in poor service and bad image in the market. In order to overcome this situation, the company decided to open a new service facility, which can take some service requests from all four service facilities, thus reducing the load. The company wants to ensure that the location of the new service facility must be optimal so that the distance from all existing service facilities must be minimum and, therefore, the customers do not need to travel much to get the service from the new service facility. The coordinates of the existing service facilities are given as follows:



Answer the following questions:

1. How can BBI use the full set of logistical and cross-functional drivers to create strategic fit. (5)
2. Find the optimal location for new facility. (5)
3. The manufacturer of BBI buys plugs at Rs. 8 each. In case he makes it himself, the fixed and variable costs would be Rs. 10,000 and Rs. 3 per plug respectively. Should the manufacturer make or buy the spark plugs? (5)