

Name:

Enrolment No:



UPES

End Semester Examination, December 2025

Course: Managing Global Operations

Semester: VII

Program: INT-BBA-MBA-VII_Managing Global

Course Code: LSCM8029_3

Time : 03 hrs.

Max. Marks: 100

Instructions: Answer all questions

SECTION A
10Qx2M=20Marks

S. No.		Marks	CO
Q1	What are the three broad flow patterns in the overall configuration of manufacturing and service organizations?	2	CO1
Q2	List any four reasons why organizations expand internationally	2	CO1
Q3	Define "cycle time" and "throughput time" in process analysis.	2	CO2
Q4	Explain the concept of "liability of being a foreigner" in global operations.	2	CO2
Q5	Name two applications of machine learning in supply chain management.	2	CO6
Q6	Define "Available to Promise" (ATP) in the context of Master Production Schedule.	2	CO4
Q7	Why is total cost of ownership (TCO) more important than unit purchase price when selecting suppliers?	2	CO5
Q8	Mention any two key criteria commonly used for evaluating and selecting suppliers.	2	CO5
Q9	Define strategic sourcing and explain how it differs from traditional purchasing	2	CO5
Q10	What is the difference between design capacity and effective capacity? Give one example to illustrate.	2	CO2

SECTION B
4Qx5M= 20 Marks

Q11	Explain the DDD framework (Deployment, Development, and Deepening) for global value creation with suitable examples for each strategy.	5	CO2
Q12	Discuss the concept of Supplier Quality Management. What are the key components of effective supplier selection and qualification?	5	CO5
Q13	A toy manufacturer has a process with five steps: Prepare (5 mins), Pre-treat (10 mins), Paint (15 mins), Dry (10 mins), and Inspect & Pack (5	5	CO2

	mins). Calculate the throughput time, cycle time, and identify the bottleneck. What would be the daily output if they worked for 10 hours?																						
Q14	Explain how Enterprise Resource Planning (ERP) systems integrate various business functions and their significance in modern supply chains.	5	CO6																				
SECTION-C 3Qx10M=30 Marks																							
Q15	Discuss the strategic trade-offs in global operations between standardization and localization. Use Ghemawat's AAA Framework (Adaptation, Aggregation, and Arbitrage) to analyze how multinational companies can balance these competing priorities. Support your answer with industry examples.	10	CO5																				
Q16	WashCo operates 3 manufacturing plants that supply cleaning products and must ship to 4 regional distribution centers. The goal is to determine how many units to ship from each plant to each distribution center to satisfy all demands at minimum shipping cost. Plants (supply): P1: 100 units P2: 150 units P3: 50 units Total supply = 300 units Distribution centers (demand): D1: 80 units D2: 120 units D3: 70 units D4: 30 units Total demand = 300 units Unit shipping costs (cost per unit from P_i to D_j) <table><tr><td></td><td>D1</td><td>D2</td><td>D3</td><td>D4</td></tr><tr><td>P1</td><td>4</td><td>6</td><td>8</td><td>10</td></tr><tr><td>P2</td><td>5</td><td>4</td><td>7</td><td>6</td></tr><tr><td>P3</td><td>6</td><td>3</td><td>5</td><td>9</td></tr></table> Formulate the objective function assuming 1 unit is shipped from each plant to each demand center. Mention supply and demand constraints.		D1	D2	D3	D4	P1	4	6	8	10	P2	5	4	7	6	P3	6	3	5	9	10	CO4
	D1	D2	D3	D4																			
P1	4	6	8	10																			
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P3	6	3	5	9																			
Q17	Custom Glass Inc. makes custom-made windows and window frames for all types of buildings. They have just received an order from a client to make and deliver 1,340 framed windows. The windows, which are identical to one another, are to be delivered over the course of six months, according to the following schedule: January: 300 windows February: 280 windows March: 200 windows	10	CO3																				

	April: 190 windows May: 160 windows June: 210 windows To avoid tying up too much working capital, the production manager of Custom Glass, Mr. Dumpty, is hesitant to produce all 1,340 windows at once. Not only would this tie up capital, it would also lead to a high risk obsolescence due to the rough handling in the warehouse. However, splitting up the order into several batches is also costly. For every batch they make there will be an initial setup cost due to equipment changeover and scrap from the "burn-in" period when the equipment is being fine-tuned. Mr. Dumpty estimates the unit holding cost to be \$2 per month and the setup cost to be \$1,000 per batch. If the windows are shipped within the same month, they do not incur any holding costs, but for future periods they do. Custom Glass can easily produce all windows in a day, so capacity is not an issue. The factory closes at night, so you can assume there is a setup cost for the first batch every day, independently of whether it was the last batch the day before or not. Mr. Dumpty now asks for your help in making a production plan for the order. 1) You start by exploring a simple heuristic: the Lot-for-Lot method. Using this method, what is the production quantity for each of the six months? 2) Using an FOQ heuristic with production quantity 470, what is the production quantity for each of the six months?		
SECTION-D 2Qx15M= 30 Marks			
Q 18	Boeing's 787 Dreamliner represents a paradigm of global operations excellence. The aircraft development involved over 20,000 international suppliers across multiple countries. 70-80% of components are sourced internationally. Japanese companies (Toray, Fuji, Kawasaki, Mitsubishi) contributing 35% of the project. European partnerships (Italy, France, Germany, UK) providing 25% of components. North American suppliers providing 30% of systems integration. Questions: a) Analyze Boeing's global supply chain strategy using the concepts of location strategy (concentration vs. dispersion). b) What are the advantages and risks of Boeing's approach?	15	CO1
Q19	Define "digital transformation" in the context of supply chains. What are the three most important technologies driving this transformation and why?	15	CO6