

International Islamic University Chittagong

Department of Business Administration

Program: MBA

Trimester: Autumn-2019

Mid Term Examination

Course Code-SCM-5505

Course Title: Material Management

Time: 2 Hours

Full Marks: 30

(Answer any three of the following questions.)

1. a. What is lead time? Describe the four primary manufacturing strategies. How does each effect delivery lead time? 4
- b. If the cost of direct material is 60%, direct labor is 10% and overhead is 25% of sales, what will be the improvement in profit if direct material is reduced to 55%? How much will sales have to increase to give the same increase in profit?(Remember, overhead cost is constant.) 3
- c. On the average, a firm has 12 weeks of work-in-process, and annual cost of goods sold is \$40 million. Assuming that the company works 50 weeks a year: 3
 - i) What is the dollar value of the work-in-process?
 - ii) If the work-in-process could be reduced to 5 weeks and the annual cost of carrying inventory was 20% of the inventory value, what would be the annual saving?
2. a. Define capacity and priority. 2
- b. Explain production leveling and subcontracting strategy. Draw the graph for each. 4
- c. A company wants to develop a level production plan for a family of products. The opening inventory is 100 units, and an increase to 130 units is expected by the end of the plan. The demand for each month is given in what follows. Calculate the total production, daily production, and production and ending inventory for each month. 4

Month		May	Jun	Jul	Aug	Total
Working Days		21	19	20	10	
Forecast Demand		115	125	140	150	
Planned Production						
Planned Inventory	100					

3. a. Define make to stock, make to order and assemble to order products. 3
 b. What are the criteria to judge Master Production Schedule(MPS)? 3
 Explain.
 c. Given the following data, calculate the projected available balance and 4
 the planned MPS receipts. The lot size is 200. The time fence is 2 weeks.
 Show required computation.

Week	0	1	2	3	4	Total
Forecast		80	80	80	70	
Customer Orders		100	90	50	40	
Projected Available Balance	140					
MPS						
ATP						

4. Write Short notes on the followings(Answer any five): 5*2=10
- i.) Order qualifier and an order winner.
 - ii.) Chase Strategy.
 - iii.) Purpose of Material Management
 - iv.) Hybrid strategy
 - v.) Backlog
 - vi.) Final assembly schedule(FAS)
 - vii.) Projected available balance(PAB)