

Answer any Five questions
All questions carry EQUAL marks
Question No. 8 is Compulsory

1. Explain various types of production systems with merits and demerits. **12M**
2. What are the factors affecting Plant location. Explain the factors to be considered for selecting a location for a chip manufacturing industry. **12M**
3. A company is planning to sequence the operations for which in the timings of each operation on each machine is given in this table: **12M**

Machine/Operation	A	B	C	D
Machine-1	9.0	10.0	12.0	14.0
Machine-2	7.0	8.0	5.0	10.0

Find the sequence of operations and calculate the total elapsed time.

4. What is aggregate planning? Explain inventory control techniques. **12M**
5. What do you mean by work measurement? What are the different steps in making a time study? **12M**
6. Write a short notes on **12M**
 - a. Difference between Manufacturing and Services
 - b. LOB. c. Gantt Chart d. MRP
7. a) TQM. Explain how do you implement TQM in an Educational Institution. **6M**
b) Briefly explain control charts by attributes. **6M**
8. **CASE STUDY:** **12M**

A Company uses 1200 units per month of an electronic component each costing Rs.2/-. Placing each order costs Rs.50/-. And the carrying cost is 6% per year of the average inventory.

i) Find EOQ

ii) If the company get 5% discount if it places single order, should they accept the discount offer?