

**3/H-65 (viii) (O) (Syllabus-2015)**

**Odd Semester, 2020**

( Held in March, 2021 )

**BUSINESS ADMINISTRATION**

( Honours )

( BBAC-302 )

( For the Students of 2015, 2016 and  
2017 Batches Only )

**( Production and Operations Management )**

*Marks : 75*

*Time : 3 hours*

*The figures in the margin indicate full marks  
for the questions*

1. (a) Define Production and Operations Management (POM). What are the objectives of POM? 3+5=8
- (b) State the features of a good plant layout. 7
- Or*
- (a) Differentiate between process layout and product layout. 7
- (b) Describe the various factors that determine the decision to locate an industrial unit in North-East India. 8

4-21/432

( Turn Over )

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2. Compute the EOQ from the following :

No. of units bought at a time	Price per unit (₹)
Less than 100	20
100 to 199	18
200 and more	16

The order cost is ₹ 30 per order and the carrying cost is 15% of the price. Annual requirement of the item is 7200 units. 15

Or

- (a) Write short notes on the following : 4+4=8
- (i) VED analysis
  - (ii) ABC analysis
- (b) Briefly explain various types of spares for stock-taking policy. 7

3. (a) What do you mean by production plan? 4
- (b) What do you understand by the concept of 'dovetailing' of plan? 4
- (c) Define aggregate planning. What is Assembly Line Balancing? 7

Or

- (a) What is scheduling? Discuss the objectives of scheduling. 3+4=7

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- (b) There are five jobs, each of which has to be processed on two machines *A* and *B* in the order *AB*. Processing times are given in the following table :

<i>Job</i>	<i>Machine A</i>	<i>Machine B</i>
1	6	3
2	2	7
3	10	8
4	4	9
5	11	5

Using Johnson's rule, determine a sequence in which these jobs should be processed so as to minimize the total processing time.

8

4. (a) Write a note on Supply Chain Management. 10
- (b) What do you mean by linear programming? 5

Or

A company has factories at *A*, *B* and *C* which supply to warehouses at *D*, *E*, *F* and *G*. Monthly capacities of the factories are *A* = 20 units, *B* = 40 units and *C* = 35 units. Monthly demands at the warehouses are *D* = 16 units, *E* = 18 units, *F* = 31 units and *G* = 30 units. The shipping cost in ₹ per unit

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from factories to warehouses is as given below :

Warehouses →	D	E	F	G
Factories ↓				
A	10	8	11	7
B	9	12	14	6
C	8	9	12	10

Using Vogel's approximation method, you are required to find an optimal shipping plan for the company.

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5. (a) What is TQM? What are the benefits of TQM? 3+5=8
- (b) What is just-in-time production? Explain the basic principles of a JIT manufacturing system. 3+4=7

Or

- (a) What is time study? How is it different from method study? 7
- (b) Write a note on six sigma. 8

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