

2 0 2 2

(February)

BUSINESS ADMINISTRATION

(Honours)

(Production and Operations Management)

(BBAC-302)

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

Marks : 75

Time : 3 hours

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

1. (a) Define production and operations management (POM). Explain the various decision areas in a POM system. 2+5=7
 - (b) Briefly discuss the factors to be considered before deciding on the location of a manufacturing plant. 8
- Or
- (a) Discuss the salient features of a good plant layout. 8
 - (b) Write a note on value analysis. 7

2. Compute the EOQ from the following : 15

<i>No. of units bought at a time</i>	<i>Price per unit (₹)</i>
Less than 1000	20
1000 to 2999	18
3000 and above	16

The order cost is ₹ 200 per order and the carrying cost is 1% of the price. Annual requirement of the item is 10000 units.

Or

- (a) What do you mean by ABC analysis for material control? 5
- (b) How is VED analysis different from ABC analysis? 5
- (c) What do you understand by codification and standardization of materials? 5

3. (a) Write a note on production planning and control. 9
- (b) What do you understand by assembly line balancing? 6

Or

- (a) What is scheduling? Discuss the objectives of scheduling. 4+7=11
- (b) Under what circumstances can Johnson's rule be used? 4

(3)

4. (a) What is supply chain management?
Discuss its importance in operations
management. 2+6=8
- (b) Write a note on linear programming. 7

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* 30 units, *B* 45 units, *C* 55 units.

Monthly demands at the warehouses are *D* 40 units, *E* 30 units, *F* 10 units, *G* 50 units.

The shipping cost in ₹ per unit from factories to warehouses is as given below :

Warehouses	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>
Factories				
<i>A</i>	5	8	5	10
<i>B</i>	7	6	5	8
<i>C</i>	10	12	20	5

Using Vogel's approximation method, you are required to find an optimal shipping plan for the company. 15

5. (a) Discuss the scope and benefits of total quality management (TQM) for an organization. 9
- (b) Write a short note on six-sigma. 6

(4)

Or

- (a) What is just-in-time (JIT) manufacturing? Discuss the principles of JIT manufacturing. 3+6=9
- (b) Explain the difference between method study and time study. 6
