Paper Code:BBA3305

School of Management, BBD University

[redacted]: IMBA Sem: III

Odd Sem Second Sessional Test Paper (2022-23)

Subject: Production and Operations Management

Time: 3 Hours Max. Marks: 60

SECTION-A

**Q1.Attempt all PARTS of the following:** (8*1=8)

a. Define Production and Operations management?

b. What do you mean by fixed position layout?

c. How value analysis is different from value engineering'?

d. Define Master Production Schedule?

e. What is the significance of control charts?

f. Define acceptance sampling.

g. what does PERT stands for?

h. What do you mean by critical path in network diagram ?

SECTION-B

**Q2. Attempt any TWO parts of the following:** (2*6=12)

a. Briefly explain the criteria of performance for the Production and Operations management.

b. Define Material requirement planning. Explain the various components of MRP.

c. What is Just in Time? How it improves overall productivity in a manufacturing system?

d. Define Network diagram. How Activity on Arrow is different from Activity on Node?

SECTION-C

**Q3. (Attempt any TWO PARTS from the following)** (2*5=10)

a. What is product layout? How it can be optimized?

b. Describe any two techniques used for location selection.

c. Discuss briefly the history of Production and Operations management function.

**Q4. (Attempt any TWO PARTS from the following)** (2*5=10)

a. Define Purchasing research. Why is it important?

b. The annual demand for an item is 3200 parts. The unit cost is Rs. 6 and inventory carrying charges are estimated as 25% per annum. If ordinary cost is 150 Rs. Per order, find- (i)EOQ (ii) Time between two orders (iii) Number of orders (iv)Total inventory cost

c. What is inventory management? Describe the various cost associated with inventory.

**Q5. (Attempt any TWO PARTS from the following)** (2*5=10)

a. Describe the types of control charts in brief.

b. Define TQM. Explain the basic principles of TQM.

c. Write short notes on – i) Statistical process control ii) Job shop production system

**Q6. (Attempt any TWO PARTS from the following)** (2*5=10)

a. On the basis of given information draw a network diagram and find – i) Critical path ii)Project completion time.

| Activity | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| Immediate Predecessors | - | - | - | B | A,D | C | E,F |
| Expected Time(Days) | 2 | 5 | 1 | 10 | 3 | 6 | 8 |

b. **Maximize** $z = 40x + 30y$ subject to $x + y \leq 12$ and $2x + y \leq 16$ where $x \geq 0, y \geq 0$

c. What is network diagram? Differentiate between PERT and CPM.