

## **BA5206 OPERATION MANAGEMENT**

### **IMPORTANT QUESTIONS AND QUESTION BANK**

#### **UNIT-I INTRODUCTION TO OPERATIONS MANAGEMENT**

##### 2-Marks

1. What is production operation management?
2. Definition of operation
3. What is the production 20 prerational management?
4. Define transformation process?
5. Define nature of production?
6. What are the objectives of production O.M.
7. Define operation strategy
8. What are the types of utility?
9. What is the difference between goods and service?
10. Define strategy fit?
11. Definition of Transformation
12. What is time utility?
13. What doo you mean by world class manufacturing?
14. Define supply chain management?
15. What skills are needed for operation management?

##### 13-Marks

1. Explain the various key elements of operations management?
2. Explain the various stages involved in typical supply chain management?
3. Why is efficiency versus effectiveness of operations debate important from the strategic angle? -justify your answer?
4. A supplier's latest financial statement reveals the following information:

1)Total sales:	Rs. 1.60 crores
2)percent of production capacity utilised:	80%
3)Rent, interest, depreciation taxes etc. add to:	Rs. 1.40 crores

What is the break-even point for the supplying firm?
5. Explain the different between services and goals?
6. Explain the nature of production (or) operation?
7. A system perspective of operation management in detail?
8. Explain the process of transformation?
9. Historical evolution of production (or) operation management?
10. Explain the challenges in operations management?
11. Explain the strategic fit framework?
12. Explain the manufacturing operations vs service operations.
13. Explain in detail about flexible manufacturing system?
14. Comparisons between intermittent and continuous production?
15. Classification based on type of strategy used by the manufacturer to serve the customer?

**UNIT-II FORECASTING, CAPACITY AND FACILITY DESIGN**

**2-Marks**

1. What is demand forecasting?
2. Definition of demand forecast?
3. What are the characteristics of demand forecasting?
4. Need of demand forecasting?
5. What is the production planning?
6. What are the elements of a good forecast?
7. What are the steps in demand forecasting?
8. What is the type of forecast?
9. What is time series?
10. What are the sales force composite method?
11. Definition of capacity planning?
12. What do you mean by demand forecasting?
13. Define operation planning?
14. How is demand forecasting done?
15. Write a short note on capacity planning?

**13-Marks**

1. Explain the demand forecasting is needed for.
2. Forecasting time Horizons.
3. Explain the types and characteristics of forecasts based on time horizon.
4. Explain in detail about the objectives of demand forecasting.
5. Explain the steps in demand forecasting.
6. Explain the Qualitative methods.
7. Explain the types of exponential smoothing.
8. Explain the overview of Qualitative methods?
9. What are the types of capacity planning?
10. Explain the ERP systems?
11. The past data about the load on a stamping centre are as follows.

Month	Load, machine hours
May 2009	584
June 2009	610
July 2009	655
August 2009	747
September 2009	862
October 2009	913
November 2009	963

1) find an exponential smoothing forecast for the month of December 2009

take  $\alpha=0.33$

2) compare your answer with a five-month moving average forecast?

12. From the data given below forecast monthly demand if  $\alpha=0.2$ . assume that actual demand in the first month is the same as the forecasted demand and the initial level and the trends for month 1 are 10. From these results, forecast the demand for period 8.

Month	1	2	3	4	5	6
Demand	20	30	35	30	50	55

13. In a locating additional unclear power plant in India what factors would you take into consideration? Explain?
14. Discuss the significance of demand forecasting?
15. How will determine and measure capacity of different industrial plans?

### UNIT-III DESIGN OF PRODUCT, PROCESS AND WORK SYSTEMS

#### 2-Marks

1. Definition of production design?
2. What are the Objectives of production design?
3. Describe the legal issues in product design?
4. What is process of planning design?
5. What is the process selection?
6. What is the process strategy?
7. What is the problem in multi-project scheduling?
8. Explain the objectives of work study?
9. What are the different between the time study and applicable to repetitive work?
10. What is partial productivity?
11. What is work measurement?
12. Definition of motion on study?
13. Why design is important for a product?
14. Define motion study.
15. What is the difference between work study and method study?

#### 13-Marks

1. Explain the influencing factors?
2. Explain the approaches/elements?
3. Detail about ethical issues in product design?
4. Explain the environmental issues in product design?
5. Explain the process selection decision.

6. Explain the types of process strategy?
7. Interrelationship of products design and process design?
8. Explain the scheduling service operations?
9. Explain the work study procedure.
10. Explain the measuring productivity?
11. Using Johnson's algorithm obtain the optimal sequences which will minimize the makes span, determine the idle time of two machines.

Job(i)	1	2	3	4	5	6
M/C 1	5	2	13	10	8	12
M/C 2	4	3	14	1	9	11

12. Sequence the five jobs on three machines to minimize processing time, based on Johnson's rule. Determine the idle times of the three machines.

Job	M1	M2	M3
1	8	5	4
2	10	6	9
3	6	2	8
4	7	3	6
5	11	4	5

13. Explain the different steps involve in work study technique?
14. What are the main requirements to design a product? Explain?
15. Is total factor productivity a sum of all partial productivities? Explain your answer.

### UNIT-IV MATERIALS MANAGEMENT

#### 2-Marks

1. What is material management?
2. What are the objectives of secondary?
3. What are the main factors?
4. What is the good material planning?
5. What are the benefits of budget?
6. What is material control?
7. What is supply network?
8. What is materials management manual?
9. What is bills of materials?
10. Definition of purchasing?
11. What are purchasing cycle?
12. What is stockless buying?
13. Indicate organisation for budgetary control?
14. Define value analysis?
15. Write a note on vendor rating?

13-Marks

1. Explain the objectives of materials management?
2. Explain primary objectives?
3. Explain the material planning?
4. What are the factors / benefits of budget?
5. Explain the benefits of budget?
6. A manufacturing company has monthly demand for one of its products as follows:

Month	Demand
February	520
March	490
April	550
May	580
June	600
July	420
August	510
September	610

Develop a three-period moving average forecast and a three-period weighted moving average forecast with weights of 0.50, 0.30, and 0.20 for the most recent demand values in that order.

7. Explain the material control cycle?
8. Explain the material budgeting process.
9. What are the factors influencing material planning?
10. Computes 3- and 5-month moving average for the delivery orders which managements has accumulated. Compare both methods using MAD.

Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	oct
Orders	120	90	100	75	110	50	75	130	110	90

11. Components of integrated materials management system?
12. Bill of materials explosion?
13. Write an essay on value analysis rating the different approaches techniques and method used?
14. Discuss the various benefits of vendor rating?
15. Scope of material management?

**UNIT-V SCHEDULING AND PROJECT MANAGEMENT**

**2-Marks**

1. Definition of project?
2. What are the objectives of project?
3. What is the process of project management?
4. What is Gantt chart?
5. Program evaluation and review techniques?
6. What is the difference between PERT and CPM?
7. What are the plant location theory?
8. What is the facility/ plant layout?
9. What is the dimensional analysis?
10. Determination of the float?
11. What is the critical path method?
12. What is meant by PERT and CPM?
13. What is concept of project management?
14. What do you mean by flow shop scheduling?
15. Define PERT.

**13- Marks**

1. Explain in detail about classification of project?
2. Explain the element of project management?
3. Write the importance of project management?
4. Explain the Terminologies?
5. Explain the objectives of CPM Analysis?
6. What is the need for selection of location?
7. Explain the location decision process?
8. Explain location models/techniques?
9. Explain in detail about planning tools and techniques?
10. Identify the critical path based on total float dec.2009.

Activity	A	B	C	D	E	F	G
Predecessors	-	A	A	B	B	C, D	E, F
Activity time (weeks)	4	3	2	5	3	4	3

11. Explain the objectives of good layout.

12. Consider the following data of a project.

Activity	A	B	C	D	E	F	G	H
Predecessors	-	-	A	B	A	C, D	C, D, E	F
a	1	2	6	1	1	1	1	1
m	2	2	7	2	4	5	2	2
b	3	8	8	3	7	9	3	9

Construct the project network and find the project duration 2008.

13. Explain the factors influencing scheduling?

14. Briefly discuss different measures of performance in single machine scheduling with independent jobs?

15. Discuss the problems in routing and scheduling that might be faced by an airline such as Indian Airlines. How do you go about helping India Airlines as an operations planning expert?

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