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Question Paper Code	21295

MBA - DEGREE EXAMINATIONS, NOV/DEC 2022

Second Semester

Master of Business Administration

20MBT204 - MANAGING OPERATIONS

(Regulations 2020)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	Interpret the term Operations Management.	*2,K2,CO1*
2.	Infer Bull whip effect in SCM.	*2,K2,CO1*
3.	Illustrate the purpose of a tracking signal.	*2,K2,CO2*
4.	Compare MRPI and MRP II.	*2,K2,CO2*
5.	List the benefits of design for manufacturability and value engineering.	*2,K1,CO3*
6.	Interpret the term Partial Productivity.	*2,K2,CO3*
7.	Examine Mnemonic code in materials management.	*2,K1,CO4*
8.	Classify the types of layout used in Stores.	*2,K2,CO4*
9.	Connect Gantt Chart to scheduling.	*2,K2,CO5*
10.	List out the project management software's.	*2,K2,CO5*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Enumerate the different types of production systems with suitable illustrations. *13,K1,CO1*

OR

b) Discuss the Supply Chain Process in FMCG industry. *13,K1,CO1*

12. a) The sales details of MJ Enterprises for 13 years of operation is furnished below. *13,K3,CO2*

Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Sales	96	116	119	127	146	145	153	158	160	165	177	190	205

Using Simple Linear Regression Forecast the sales for the 14 thyear.

OR

b) In locating an additional new airport what are the factors to be considered. Explain them in detail. *13,K1,CO2*

13. a) Examine the various approaches and influencing factors in deciding the product design. *13,K1,CO3*

OR

b) The mean observed time and rating factor for five elements of a job are given below. Find out the allowed time where fatigue allowance, personal allowance and contingency allowance are 5%, 10% and 15% of basic time respectively. *13,K4,CO3*

Element	Mean Observed time in min	Rating Factor
1	0.3	120
2	0.6	120
3	2.2	80
4	1.5	110
5	1.4	90

14. a) As a purchase manager of a Piramal Pharma Ltd, what factors do you consider to evaluate the vendors and suggest ways to maintain long term relationships with them? *13,K3,CO4*

OR

b) A manufacturing company purchase 9000 parts of a machine for its annual requirements ordering for month usage at a time, each part costs Rs. 20. The ordering cost per order is Rs. 15 and carrying charges are 15% of the average inventory per year. You have been assigned to suggest a more economical purchase policy for the company. What advice you offer and how much would it save the company per year? *13,K3,CO4*

15. a) Three recent college graduates have formed a partnership and have established a firm. *13,K4,CO5*

Their first project consists of activities listed in the following table.

a. Draw the precedence diagram.

b. Determine the critical path and expected project completion time

c. What is the probability that the project can be completed in 24 days or less?

Activity	Immediate Predecessor	Time in Days		
		Optimistic	Most Likely	Pessimistic
A	-	5	6	7
B	-	8	8	11
C	A	6	8	11
D	-	9	12	15
E	C	5	6	9
F	D	5	6	7
G	F	2	3	7
H	B	4	4	5
I	H	5	7	8

OR

b) Consider the following 3 machines and 5 jobs flow shop problem. Check whether Johnson's rule can be extended to this problem. If so, what is the optimal schedule and the corresponding makespan? *13,K4,CO5*

Job	Machine1	Machine2	Machine3
1	8	5	4
2	10	6	9
3	6	2	8
4	7	3	6
5	11	4	5

PART - C (1 × 15 = 15 Marks)
(Compulsory)

16. Behind every well-known brand name in consumer electronics, much of the high-tech manufacturing which forms the heart of the product is probably done by companies few have heard of. Companies such as Ericsson and IBM are increasingly using electronic manufacturing services (EMS) companies which specialize in providing the outsourced design, engineering, manufacturing and logistics operations for big brand names. Flextronics is one of the leading EMS providers of 'operational services' to technology companies. With over 70,000 employees spread throughout its facilities in 28 countries, it has a global presence which allows it the flexibility to serve customers in all the key markets throughout the world. *15,K6,CO6*

From a market requirements perspective, Flextronics manufacturing locations have to balance their customers need for low costs (electronic goods are often sold in a fiercely competitive market) with their need for responsive and flexible service (electronics markets can also be volatile). From an operations resource perspective, Flextronics could have set up manufacturing plants close to its main customers in North America and Western Europe. This would certainly facilitate fast response and great service to customers; unfortunately these markets also tend to have high manufacturing costs. Flextronics operations strategy must therefore achieve a balance between low costs and high levels of service in its strategic location and supply network decisions. One way Flextronics achieves this through its operations strategy is by adopting what it calls its industrial park strategy. This involves finding locations which have relatively low manufacturing costs but are close to its major markets. It has established industrial parks in places such as Hungary, Poland, Brazil and Mexico. Flextronics own suppliers also are encouraged to locate within the park to provide stability and further reduce response times.

Questions:

1 How does Flextronics operations strategy help the company to satisfy its customers?

2 What specific operations competences must Flextronics have in order to make a success of its strategy?