KUMARAGURU
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Register Number:……………………..

MBA DEGREE EXAMINATIONS: JUNE 2015

(Regulation 2012)

Second Semester

MASTER OF BUSINESS ADMINISTRATION

MBA624: Operations Management

Time: Three Hours   **Maximum Marks: 100**

Case Study:-

PART A (1 x 20 = 20 Marks)

1.   A dealer supplies you the following information with regard to a product dealt in by him

Annual demand	16000 units
Ordering cost	Rs12 / order
Inventory carrying cost	11% of value of inventory per year
Price	Rs 16/unit

The dealer is considering the possibility of allowing some back order (shortage) to occur. He has estimated that the annual cost of back ordering will be 17% of the value of inventory.

a) What should be the optimum number of units of the product he should buy in one lot?

b) What quantity of the product should be allowed to be shortage if any?

Answer all the Questions:-
PART B (10 x 2 = 20 Marks)

2.   List different types of service system exists in practice

3.   Production is the creation of   --------------- Manufacturing is an example of ------------------ transformation process

4. List any four types of inventories

5. List any four reasons for keeping inventory in household kitchen

6. List the different types of planning with example useful for an MBA student

7. How will you minimize forecast error

8. List any four scheduling strategies

9. What is the significance of FLOAT and CRITICAL PATH in a net work

10. List any four work measurement methods used in practice

11. Define work sampling

PART C (4 x 15 = 60 Marks)

12 a)   Explain the functions and scope of production management.

(OR)

    b)   Explain any five material handling techniques used in manufacturing Industry.

13. a)   A company has 8 large machines which receive preventive maintenance. The maintenance team is divided into 2 crews A and B .Crew A takes the machine power and replaces parts as per given maintenance schedule. The second crew resets the machine and puts back into operation. At all times the no passing rule is considered to be in effect. The servicing time for each machine is given below

Machine	A	B	C	D	E	F	G	H
Crew A	5	4	22	16	15	11	9	4
Crew B	6	10	12	8	20	7	2	21

Determine the optimal sequence of scheduling the factory maintenance crews to minimize their idle times.

(OR)

    b)   Write short note on

    (i) Capacity Requirement planning

    (ii) Types of Forecasting

14. a) A company manufactures the consumer durable products and the company intends to develop an aggregate plan for six months starting from January through june. The following information is available

Month	jan	feb	mar	apr	may	june
Demand	500	600	650	800	900	800
Working days	22	19	21	21	22	20

The following cost details are given

Materials	Rs 100/unit
Inventory carrying cost	Rs 10 unit/month
Cost of stockout	Rs 20/unit/month
Cost of subcontracting	Rs 200/unit
Hiring and training cost	Rs50/worker
Layoff cost	Rs100/worker
Labour hours required	Rs4/unit
Regular time cost	Rs 12.50 /hour
Overtime cost	Rs 18.75/hr
Beginning inventory	200 units
Safety stock required	Nil

Select the suitable aggregate planning strategy among the following

Produce exactly to meet demand – vary the work force

Constant work force-Vary in inventory and allow shortages

Constant work force and use subcontracting

(OR)

b) The activity details and their predecessor details are given below with their activity times

Activity	Predecessors	Activity time(weeks)
A	-	4

B	A	3
C	A	2
D	B	5
E	B	3
F	C,D	4
G	E,F	3

Construct the Network diagram

Identify the critical path

Find the float for each activity

1) Explain the benefit and scope of TQM.

15	a)	Write short notes on	
		1. Work measurement techniques.	(7)
		2. Types of facility layout Decision.	(7)

(OR)

b) Explain the different types of line balancing techniques.

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