44769

Name : ....

Reg. No : ....

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, JUNE 2013

ME 04 802 – OPERATIONS MANAGEMENT

Time : Three Hours

Maximum : 100 Marks

PART A

Answer all questions

1. Differentiate between PERT and CPM.

2. What is incremental analysis?

3. Distinguish between the P and Q system of inventory control.

4. What are (i) Relevant inventory costs (ii) Opposing cost (iii) Opportunity cost (iv) Reorder point & (v) Lead time?

5. What are the functions of production planning and control?

6. Differentiate between Job shop scheduling and flow shop scheduling.

7. Differentiate between product and process layouts.

8. What are the factors influencing location of a plant?

(8 x 5 = 40 marks)

PART B

Answer all questions

9. Explain in detail the Bayesian Decision theory.

OR

10. Draw a network diagram for the activities given below and determine the critical path.

Activity	Duration of activity (months)	Immediate Predecessor Activity
A	12	-
B	8	A
C	4	A
D	3	A
E	12	B
F	18	C
G	5	C
H	4	E,F
I	9	D.G
J	6	H,I

11. Explain in detail the basic Economic Order Quantity (EOQ) model.

OR

12. Explain in detail the ABC classification system of inventory.

13. Consider the following data which shows a firm's sales for a product line during the seven months of the previous year. Using linear regression analysis model forecast the sales of this firm for the 8th, 9th and 10th months.

Months	1	2	3	4	5	6	7
Sales	600	1200	1500	1600	2400	3000	3200

OR

14. What are the assumptions of Johnson's algorithm? Consider a 2 machine and 5 job flow shop problem as shown in table. Check whether Johnson's algorithm is applicable or not. Find the optimal sequence and corresponding make span.

JOB	PROCESSING TIME	
	Machine 1	Machine 2
A	6	8
B	11	6
C	7	3
D	3	7
E	5	10

15. What is line balancing? Explain in detail the heuristic approach to line balancing in layout design.

OR

16. Desribe in detail the following computer facility planning packages with examples.

(i) ALDEP and (ii) CRAFT

(15 x 4 = 60 Marks)