

**FACULTY OF MANAGEMENT****M.B.A. II-Semester Examination, July / August 2015****Subject : Operations Management****Course No : 2.6****Time : 3 Hours****Max. Marks: 80****Note: Answer ALL the questions.****Part – A (10x2=20 Marks)**  
**(Short Answer Type)**

- 1 Write short notes on the following.
- (a) What is process design?
  - (b) What are the characteristics of batch production?
  - (c) What is line balancing?
  - (d) What is plant layout?
  - (e) What is OC curve?
  - (f) What are the managerial uses of Control Charts?
  - (g) What is vendor analysis?
  - (h) What is materials requisition?
  - (i) What is VED analysis?
  - (j) What are inventory costs?

**Part – B (5x12=60 Marks)**  
**(Essay Answer Type)**

- 2 (a) Define Operations Management and discuss its role in total management system.  
**OR**  
(b) Explain the steps in production planning and control.
- 3 (a) What is plant location? Explain the factors influencing the choice of plant location.  
**OR**  
(b) Seven jobs are to be processed on two machines A and B in the order AB. Each machine can process only one job at a time. The processing times (in hours) are as follows:

Job	1	2	3	4	5	6	7
Machine A	10	12	13	7	14	5	16
Machine B	15	11	8	9	6	7	16

Suggest optimum sequence of processing the jobs and the total elapsed time. Also compute the idle time for both the machines.

- 4 (a) What is acceptance sampling? Explain its managerial uses in manufacturing organizations.  
**OR**  
(b) A plant produces newsprint and rolls of paper. The number of defects disclosed by the inspection of 20 rolls is as follows:  
10, 6, 18, 5, 4, 9, 4, 1, 12, 15, 9, 11, 14, 20, 21, 10, 12, 5, 8, 10  
Based on an appropriate control chart, establish control limits and comment whether the process is in a state of control.

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- 5 (a) What is prioritization of materials? Explain various techniques for prioritization of materials in a large size manufacturing organization.

**OR**

- (b) Explain the importance of make or buy decisions in manufacturing organizations. List out the implications under various circumstances.

- 6 (a) What is inventory control? Explain various inventory control techniques.

**OR**

- (b) Find the optimal order quantity for a product where the annual demand for the product is 500 units, the cost of storage per unit per year is 10% of the unit cost and ordering cost per order is Rs. 180.00. The unit costs are given below:

$1 \leq Q_1 \leq 500$	25.00
$501 \leq Q_2 \leq 1500$	24.80
$1501 \leq Q_3 \leq 3000$	24.60
$\geq 3001$	24.00

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