## FACULTY OF MANAGEMENT

## M.B.A. II - Semester Examination, July 2014 <br> Course No. - 2.6 <br> Operations Management

Time : 3 Hours

Max. Marks: 80
Note: Answer All questions.
PART - A (10 x 2 = 20 Marks)
1 Write short notes on the following:
(a) Production control
(b) Role of operations management
(c) Aggregate planning
(d) Objectives of plant layout
(e) Quality assurance
(f) Producer's risk
(g) Right time of supply
(h) Factors for evaluating the suppliers
(i) Safety stock
(j) Disadvantages of ABC analysis

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\text { PART - B (5 x } 12 \text { = } 60 \text { Marks })
$$

Answer all the questions using the internal choice.
2 (a) Discuss the role of OM in the total management system with their interdependencies between other sub systems.

OR
(b) Describe the production methods and procedure for production systems bringing out clearly the differences in the case of : Job-shop system and batch production.

3 (a) Describe aggregate planning and scheduling. What are the methods available for line balancing? Discuss their relative merits and demerits.

OR
(b) Discuss the objective and subjective factors, taken into consideration for plant location. How does it influence location of steel plants in India?

4 (a) Ten assemblies were inspected and the defects per assembly are shown below. Determine the control limits for the defects per assembly.

| Sample Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Defects | 6 | 4 | 1 | 4 | 8 | 0 | 2 | 0 | 4 | 3 |
| OR |  |  |  |  |  |  |  |  |  |  |

(b) Five time studies have been made of an operation in mail order business. Those studies yielded the following elemental normal times in minutes per unit of output.

Code No. 5093

- 2 -

| Element | Study Number |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |
| A | 0.126 | 0.090 | 0.124 | 0.127 | 0.129 |
| B | 4.235 | 4.401 | 3.192 | 4.313 | 4.250 |
| C | 0.864 | 0.888 | 0.875 | 1.267 | 0.892 |
| D | 1.498 | 1.503 | 1.526 | 1.511 | 1.492 |
| E | 0.737 | 0.417 | 0.419 | 0.424 | 0.421 |
| F | 0.064 | 0.059 | 0.060 | 0.062 | 0.066 |

With the use of these results, determine the total normal time for the job in terms of minutes per unit.

5 (a) What is meant by 'integrated materials management'? Develop a suitable organization structure to achieve the same. Discuss the MRP programme. Explain the concept of waste management.

## OR

(b) What are the various factors guiding the selection of the 'right source'? Discuss.

6 (a) Why is inventory required? Explain the various costs associated with the inventory with suitable examples. Explain EOQ models with and without shortages.

OR
(b) Ten items used by a tiny sector unit are given below: Classify into $A, B$, and $C$ class.

| Price <br> (Rs) | Annual usage <br> (quantity nos.) |
| :---: | :---: |
| 120.00 | 200 |
| 1080 | 100 |
| 0.60 | 2000 |
| 60.00 | 400 |
| 0.12 | 6000 |
| 2.40 | 1200 |
| 300.00 | 120 |
| 2.10 | 2000 |
| 3.00 | 1000 |
| 1200 | 80 |

