

**A14**

**Sreenidhi Institute of Science & Technology**

(An Autonomous Institution)

**Code No: 4Z212**

**MBA I - YEAR II – SEMESTER AUGUST 2015 (Regular)**

**PRODUCTION AND OPERATIONS MANAGEMENT**

**Time: 3 Hours Max. Marks: 60**

**Note: No additional answer sheets will be provided.**

**Part – A**

**Max. Marks: 10**

**Answer all the QUESTIONS**

1. What is Product Design? What is Functional Design & Form Design?
2. Define Plant Location & Plant Layout.
3. What is JIT Manufacturing? What are its advantages?
4. What is EOQ? How EOQ helps the Materials Management in the Organization?
5. What is Quality? What are the Dimensions of Product Quality?
6. What is Network Analysis? Explain the differences between PERT & CPM.
7. What is Capacity Utilization? How it is used in Production Planning Process?
8. What is ABC Analysis?
9. What is PDCA Cycle?
10. What is Inspection? What are the types of Inspections?

**Part – B**

**Max. Marks: 50**

**ANSWER ANY FIVE. ALL QUESTIONS CARRY EQUAL MARKS.**

1. a) Explain various factors influencing Product Design?

b) What are the characteristics of Good Product Design?

1. a) Why Location selection plays key role in the success of any organization?

b) What are the factors influencing the Location Selection?

1. a) What are the functions of Master Production Scheduling?

b) What are the symptoms of a poorly designed Master Production Scheduling?

1. a) What is Inventory Cost? Explain.

b) Explain various types of Inventory Costs involved in Inventory Management and Control?

1. a) Explain the need of ISO 9000.

b) Construct R chart from the following information and state whether the process is in control. For each of the following R has been computed from a sample of 5 units drawn at an interval of half an hour from an ongoing manufacturing process. Values for D4 = 2.11 & D3 = 0.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SAMPLE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| R | 23 | 39 | 14 | 5 | 20 | 17 | 21 | 11 | 40 | 10 |

1. a) Draw the network diagram by using the data in given table. Calculate how far the project can be crashed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Activity | Preceding Activity | Time (In Days) | | Cost (Rs) | |
| Normal **NT** | Crash **CT** | Normal **NC** | Crash **CC** |
| A | - | 6 | 4 | 5000 | 6200 |
| B | - | 4 | 2 | 3000 | 3900 |
| C | A | 7 | 6 | 6500 | 6800 |
| D | A | 3 | 2 | 4000 | 4500 |
| E | B,C | 5 | 3 | 8500 | 10000 |

b) Prepare the Project duration and Project Cost summary table for the above table.

1. a) What is Method Study? What is the Procedure of Method Study?

b) What are the advantages of Method Study?

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