



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 140757

Roll No.

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B. Tech.

(SEM. VII) (ODD SEM.) THEORY
EXAMINATION, 2014-15

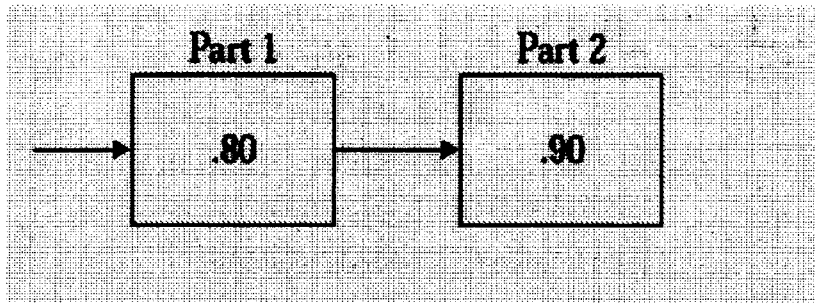
TOTAL QUALITY MANAGEMENT

Time : 3 Hours]

[Total Marks : 100

- 1 Attempt any FOUR parts : 5×4=20
- a) Write short notes on MTTF.
 - b) Define the reliability. Sketch the product life cycle with its components.
 - c) List some of the essential requirements of the success of quality circle.
 - d) Summarize the challenges in identification of the defects.
 - e) Give the theory and implementation of zero defect in quality management.

- f) Assume that a product has two parts, both of which must work for the product to function. Part 1 has a reliability of 80 percent and part 2 has a reliability of 90 percent. Compute the reliability of the product.



- b) What are the various responsibility factors to maintain the quality system?
 c) Briefly explain the role of human in quality management. Justify your answer with an example.

4 Attempt any TWO parts : 10×2=20

- a) The following table shows the number of the number of point of defects on the surface of a bus body on March 2012.
- Compute the value of \bar{c} and its control limits
 - Draw c chart
 - Compute value of \bar{c} and control limits for the future use, if you deem it necessary.

Body number	No of Defects	Body Number	No of Defects
1	13	11	17
2	15	12	11
3	19	13	7
4	8	14	11
5	6	15	14
6	17	16	6
7	7	17	16
8	9	18	10
9	3	19	2
10	23	20	6

2 Attempt any TWO parts : 10×2=20

- Explain briefly about the quality control in service and also about benefits of having guarantee policy in an organization.
- List the Various Procurement procedure in detail.
- Explain the basic principle and concept of achieving quality in design.

3 Attempt any TWO parts : 10×2=20

- Write short notes on :
 - Economics of quality value and contribution
 - Quality function

- b) Briefly explain how the process improvement can be done using control charts.
- c) What are the steps for calculating and plotting an R Control Chart? Explain them in detail with example.

5 Attempt any TWO parts : **10×2=20**

- a) Discuss about 20 elements of ISO 9000 standards.
 - b) What are the various steps in Taguchi's loss function? Explain them in detail.
 - c) State the objectives and challenges of JIT in detail.
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