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Name: .....

Reg.No. ....

**EIGHTH SEMESTER B.TECH (ENGG) DEGREE EXAMINATION, JUNE 2011  
(2004 ADMISSION)**

**ME/PE/AM 04 801 - QUALITY ENGINEERING & MANAGEMENT**

**Time: 3 Hours**

**Maximum: 100 Marks**

- I
1. Compare traditional approach and total quality management.
  2. Write short notes on the importance of quality assurance.
  3. Discuss the use of quality cost analysis.
  4. How can everyone be involved in improvement activity?
  5. Explain the steps required to develop control charts.
  6. Write short notes on control charts for variables.
  7. Write down the application of OC curve
  8. Write short notes on AOQL. (8 x 5 = 40)

- II
- A. Explain in detail about the role of senior management in quality management.
  - B. Explain in detail about Juran's quality planning and analysis principle.

- III
- A. Explain in detail about PDSA cycle.
  - B. Describe in detail about the implementation of ISO-9000 procedure.

- IV
- A. The current capacities in ampere in 5 random samples from each batch are recorded. There are 10 such batches. Construct  $\bar{X}$  and R chart and comment.

S.No	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>
1.	43	61	64	69	72
2.	46	54	67	71	79
3.	18	23	74	76	81
4.	37	49	56	67	70
5.	41	44	64	70	74
6.	21	24	23	45	51
7.	56	61	61	62	84
8.	25	38	40	46	71
9.	24	34	46	51	66
10.	33	38	40	49	58

- B. The inspection results of copper bushes in a machine shop based on samples of size 50 are as given below. Construct a suitable control chart and offer your inferences.

Sample number	1	2	3	4	5	6	7	8	9	10
Number rejected	9	2	7	11	3	6	2	4	3	7
Sample number	11	12	13	14	15	16	17	18	19	20
Number rejected	5	4	10	16	3	14	4	1	5	8

- V
- A. Discuss on the various sampling plans.  
 B. Explain the method of constructing OC curve. (4 x 15 = 60)

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