Department of Information & Technology

IV Year VII Semester

7ME6-60.2: Quality Management

ASSIGNMENT-I

Q1. What are the objectives of quality policy? Explain different types probability distribution.	BLT-1	CO-1
Q2. Describe variation, pattern of variation its interfaces about process quality. How analysis of variance is done?	BLT-2	CO-1
Q3. What is frequency distribution? Explain its type.	BLT-2	CO-1
Q4. Describe in detail quality and economics of quality.	BLT-2	CO-1
Q5. Explain different dimension of quality.	BLT-2	CO-1

ASSIGNMENT-II

Q1. How sample size and sampling frequency is decided? How did we analyse the patterns on the control chart?	BLT-3	CO-2
Q2. What is difference between Quality assurance and Quality control?	BLT-4	CO-2
Q3. What is statistical quality control? Write down the causes of variance.	BLT-2	CO-2
Q4. Write down application of variable control chart.	BLT-1	CO-2
Q5. The thickness of a printed circuit board is an important quality parameter. Data on board thickness (in inches) are given in Table 6E.4 for 25 samples of three boards each. (a) Set up and R control charts. Is the process instatistical control? (b) Estimate the process standard deviation. (c) What are the limits that you would expect to contain nearly all the process measurements? (d) If the specifications are at 0.0630 in. ± 0.0015 in.,	BLT-5	CO-2

TABLE 6E.4
Printed Circuit Board Thickness for Exercise 6.4

Sample Number	x_1	x_2	x_3
1	0.0629	0.0636	0.0640
2	0.0630	0.0631	0.0622
3	0.0628	0.0631	0.0633
4	0.0634	0.0630	0.0631
5	0.0619	0.0628	0.0630
6	0.0613	0.0629	0.0634
7	0.0630	0.0639	0.0625
8	0.0628	0.0627	0.0622
9	0.0623	0.0626	0.0633
10	0.0631	0.0631	0.0633

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ASSIGNMENT-III

Q1. What do you mean by SIX Sigma. Explain in detail?	BLT-1	CO-3
Q2. How control chart is selected between variable and attribute?	BLT-3	CO-3
Q3. Explain the processes capability analysis using a probability plot.	BLT-2	CO-3
Q4. How SPC work on short production run?	BLT-3	CO-3
Q5. Define the process capability analysis using a histograph or a probability plot	BLT-1	CO-3

ASSIGNMENT-IV

Q1. Explain the following: i) Field complaint ii) Quality survey iii) Quality audit iv) Quality ratting	BLT-2	CO-4
Q2. Explain the concept of quality assurance and list down the advantage of quality assurance?	BLT-2	CO-4
Q3. What are sampling plans explain in detail? Discuss the advantage and disadvantage of sampling.	BLT-1	CO-4
Q4. Explain in detail ISO 14000 principles.	BLT-2	CO-4
Q5. Explain in detail ISO 9000 principles.	BLT-2	CO-4

ASSIGNMENT-V

Q1. Write short note on i) Failure data analysis ii) Quality loss function iii) Pareto analysis design for reliability iv) Reliability optimization	BLT-1	CO-5
Q2. What are Redundancy and improvement factors evaluations?	BLT-1	CO-5
Q3. Define failure, types of failure, failure rate of models also MTBF.	BLT-2	CO-5
Q4. Explain Taguchi method of design of experiments?	BLT-2	CO-5
Q5. Write short note on Reliability evaluation and types of it.	BLT-1	CO-5