

Unit - I

- * 1) Elements of TQM concept / Deming's 14 principles of management
- * 2) Explain Gurus of TQM
 - i) shewart ii) Deming iii) Joseph M. Juran
- * 3) Meaning of Quality & Quality improvement
- * 4) Relation b/w Quality & productivity
- * 5) Cost of Quality
- * 6) Quality methodology

Unit - II

- * 1) Problems on - mean, median, mode & std. deviation
- * 2) Calculating area and Z-score using normal distribution curve
- * 3) Central limit theorem
- * 4) Deming funnel experiment
- * 5) \bar{X} -bar & R chart - Problems (Revised type)
- * 6) Type-I & II Errors

Unit - III

- * 1) Binomial & Poisson distributions
 - * 2) Fraction defective - P-chart
 - * 3) number of fraction defective - np-chart
 - * 4) Control charts for non conformance/defects - C-chart
 - * 5) number of non conformance/defects - U-chart
 - * 6) ~~Key~~ Expl- Tolerance limit,
process capability, Capability index,
process performance Capability, PP index
- } very important

Unit - 4

- * 1) Theory - Double, Multiple and sequential Sampling
- * 2) Characteristics of OC Curve
- * 3) Construction of OC Curve (AOQL, LTPD, RQL)
- * 4) OC - Curve - Numericals
- * 5) Double Sampling & Sequential planning - Numericals
- * 6) Quality Control & Reliability
- * 7) Failure rate Curve (Bath tub Curve)
- * 8) FMEA
- * 9) Availability of single repairable system using Markov model

Unit 5

- * 1) Fault tree analysis
- * 2) Failure rate & Hazard function, Const Hazard model
- * 3) System Reliability
 - (a) Series (b) Parallel, (c) mixed
- * 4) Numericals - Series & parallel system
- * 5) Numericals on - (maintainability & availability)
 - Mean time to failure (MTTF)
 - mean time to repair (MTTR)
 - mean time b/w Failure (MTBF)