

For Notes, Syllabus, Question Papers and Many more
32071 TOTAL QUALITY MANAGEMENT

DETAILED SYLLABUS

Unit I BASIC CONCEPTS OF TOTAL QUALITY MANAGEMENT

Quality-Definitions - Dimensions of quality - Brainstorming and its objectives - Introduction to TQM – Characteristics – Basic concepts – Elements – Pillars – Principles - Obstacles to TQM implementation – Potential benefits of TQM – Quality council – Duties – Responsibilities – Quality statements – Vision – Mission – Quality policy statements – Strategic planning – Seven steps to strategic planning – Deming philosophy- Customer delight - ISO 9001:2008 Quality Management System requirements and implementation.

Unit II CONTINUOUS PROCESS IMPROVEMENT – Q7 TOOLS

Input / Output process model – Juran Trilogy – PDCA (Deming Wheel) cycle – 5S Concepts – SEIRI, SEITON, SEISO, SEIKETSU and SHITSUKE – needs and objectives – effective implementation of 5S concepts in an organisation - Housekeeping – Kaizen. Seven tools of quality control (Q-7 tools) – Check sheet – Types of check sheet – Histogram – Cause and effect diagram - Pareto diagram – Stratification Analysis – Scatter diagram-Graph/run charts – Control charts - Construction of above diagrams. Quality circle - concept of quality circle - Organisation of Quality circle and objectives of Quality circle.

Unit III STATISTICAL FUNDAMENTALS

Types of Data – Collection of Data – Classification of Data – Tabular presentation of Data – Graphical representation of a frequency distribution – Comparison of Frequency distribution – Mean – Median – Mode – Comparison of measures of central tendency – Introduction to measures of dispersion – Sample – sampling - Normal curve – Sigma – Concept of six sigma – Principles – Process- Problems.

Unit IV CONTROL CHARTS

Control chart – Types of control charts – Control chart for variables – Construction of X and R charts – control limits Vs specification limits – Process capability – Method of doing process capability Analysis – Measures of process capability – Problems. Attributes – Control charts – P chart – np chart – c chart – u chart – Construction of above diagrams – Problems - Comparison between variable chart and Attribute chart.

Unit V MANAGEMENT PLANNING TOOLS & BENCH MARKING

Affinity diagram – Radar Diagram - Inter Relationship diagram (Inter Relationship diagram) – Tree diagram - Prioritization matrix – Matrix diagram – Decision tree – Arrow diagram – Matrix data analysis diagram - Construction of above diagrams.

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Bench marking – Objectives of bench marking – Types – Bench marking process - Benefits of Bench marking – Pit falls of Bench marking-Just In Time(JIT) concepts and its objectives - Total Productive Maintenance(TPM) - Introduction, Objectives of TPM - steps in implementing TPM.

Text Book:

- 1) Total Quality Management, Date H.Besterfiled, Pearson Education Asia.
- 2) Total Quality Management, V.Jayakumar, Lakshmi Publications.(reprint 2005)
- 3) Training manual on ISO 9001 : 2000 & TQM, Girdhar J.Gyani, Raj Publishing House, Second Edition 2001
- 4) Quality Management, Howard Cuitlow, Tata Mc Graw Hill, 1998

Reference Book:

- 1) Total Quality Management, Oakiand.J.S. Butterworth Heinemann Ltd. Oxford 1989
- 2) Quality Management – Concepts and Tasks- Narayana.V and Sreenivasan.N.S., New Age International 1996.
- 3) Total Quality Management for engineers, Zeiri. Wood Head Publishers. 1991.
- 4) Quality Planning and Analysis, Juran J.M and Frank M.Gryna Jr., TMH. India. 1982
- 5) ISO 9001, Brain Rethry, Productivity and Quality Publishing Pvt. Ltd. 1993.
- 6) Quality Auditing D.Mills, Chapman and Hall, 1993.