

Subject Code: 502

Subject Name: Quality Management

Unit I

3 Hrs

A brief history of quality movement, Old and New definitions of quality, product quality, quality in services

Unit II

3 hrs

Total Quality / Total Quality Management (TQM):

Concepts of Total Quality (TQ) & TQM.

TQ and Traditional Management Practices, Kaizen and Principle of Continuous improvement, Benchmarking & Quality circles.

Unit III

12 hrs

Approaches to Total Quality:

Total Quality as performance excellence.

The Deming Management Philosophy & Deming's analysis of why TQM has failed.

Profound knowledge

Deming's 14 points for Management.

The Feigenbaum philosophy, Walter shewhart philosophy.

The Juran Philosophy

The Crosby Philosophy

Unit IV

8 hrs

Frameworks for Quality and Performance Excellence.

Inspection – Functions & Objective, Sampling Inspection, Acceptance Sampling plan.

ISO 9000 Series of Standards.

QS-9000.

The Deming Prize.

Malcolm Baldrige Award

Unit V

10 hrs

Total Quality Tools & Statistical Thinking

QFD, Concurrent Engineering,

Tools for Continuous Improvement.

- Tools for Data Collection and Analysis
- 7 Tools Quality Management
- Deming Cycle

Statistical Thinking, Measurement of Process capability

Unit VI

7 hrs

Reengineering – Process Centering, The Triumph of Process, Process Design, Process Improvement.

Readiness for Reengineering – Self-Diagnostic Test.

Unit VII

7 hrs

Japanese Quality Philosophies and Techniques.

TPS (Toyota Production System) Philosophy.

TPS Practices & Tools.

Unit VIII

8 hrs

Six Sigma

Overview of Six Sigma, Shainin DOE.

Benefits of Six Sigma

Unit IX

2hrs

Lean Sigma; Accelerated Six Sigma Overview and Importance.

Recommended Books:

1. Total Quality: Evans & Dean
2. Reengineering: Michael Hammer
3. Profit Beyond Measure: H. Thomas Johnson & Broms.
4. The Power of Ultimate Six Sigma – Keti Bhole
5. Perfect Engine – Anand Sharma