

# AMIE16 TOTAL QUALITY MANAGEMENT

## UNIT-1 INTRODUCTION

- 1.1 Introduction
- 1.2 Need for quality- Evolution of quality
- 1.3 Definition of quality
- 1.4 Dimensions of manufacturing and service quality
- 1.5 Basic concepts of TQM- Definition of TQM-
- 1.6 TQM Framework- Contributions of Deming, Juran and Crosby- Barriers to TQM.

## UNIT-2 TQM PRINCIPLES

- 2.1 Leadership- Strategic quality planning, Quality statements-
- 2.2 Customer focus- Customer orientation, Customer satisfaction,
- 2.3 Customer complaints, Customer retention- Employee involvement
- 2.4 Motivation, Empowerment, Team and Teamwork,
- 2.5 Recognition and Reward, Performance appraisal
- 2.6 Continuous process improvement
- 2.7 PDCA cycle, 5s, Kaizen- Supplier partnership
- 2.8 Partnering, Supplier selection, Supplier Rating.

## UNIT-3 TQM TOOLS & TECHNIQUES-1

- 3.1 The seven traditional tools of quality- New management tools-
- 3.2 Six sigma: Concepts, methodology,
- 3.3 Applications to manufacturing, service sector including IT
- 3.4 Bench marking- Reason to bench mark, Bench marking process
- 3.5 FMEA – Stages, Types.

## UNIT-4 TQM TOOLS & TECHNIQUES II

- 4.1 Quality circles- Quality Function Development (QFD)
- 4.2 Taguchi quality loss function- TPM- Concepts, improvement needs
- 4.3 Cost of Quality- Performance measures.

## UNIT-5 QUALITY SYSTEMS

- 5.1 Need for ISO 9000- ISO 9000-2000 Quality System
- 5.2 Elements, Documentation, Quality auditing – QS 9000 ISO 14000
- 5.3 Concept, Requirements and Benefits
- 5.4 Case studies of TQM implementation in manufacturing and service sector including IT.

## Reference Book:

1. James R. Evans and William M.Lindsay, “The Management and Control of Quality”,6th Edition, South-Western (Thomson Learning), 2005.