**VALLUVAR COLLEGE OF SCIENCE AND MANAGEMENT, KARUR**

**DEPARTMENT OF BUSINESS ADMINISTRATION**

 **CLASS : II MBA SEMESTER: IV**

 **SUBJECT: TOTAL QUALITY MANAGEMENT CODE: P16MBA18**

**UNIT-1**

**1.Quality**
 According to Deming “It is the predictable degree of uniformity, at low cost and suited to the market”.

Quality = Performance x Expectations

**2. What are the Dimensions of Quality?**

•Features •Conformance •Reliability •Durability •Service •Response •Aesthetics •Reputation

**3. Define Quality Planning.**

 It is defined as the process of planning to design and obtain a better quality product or service and to attain new break through goals.

**4. What are the steps in Quality Planning?**

 According to Juran the steps included in Quality planning are: 1. Establish quality goals. 2. Identify customers. 3. Discover customer needs. 4. Develop product features. 5. Develop process features. 6. Establish process controls, transfer to operations.

**5. Define Quality Cost.**

 Quality cost is defined as those costs associated with the non- achievement of product or service quality as defined by the requirements established by the organization and its contracts with customers and society

**6. Define Total Quality**

 TQM is an enhancement to the traditional way of doing business. It is the art of managing the whole to achieve excellence. It is defined both a philosophy and a set of guiding principles that represent the foundation of a continuously improving organization

**7. What are the six basic concepts that a successful TQM programme requires?**

 The six basic concepts that a successful TQM programme requires 1. Top management commitment 2. Focus on the customer 3. Effective employee involvement 4. Continuous improvement 5. Treating suppliers as partners and 6. Establishing performance measures.

**8. Give the Objectives of TQM?**

 a. To develop a conceptual understanding of the basic principles and methods associated with TQM; b. To develop an understanding of how these principles and methods have been put into effect in a variety of organizations;

**9. Give the Obstacles associated with TQM Implementation?**

•Lack of management commitment

•Inability to change organizational culture •Improper planning

•Lack of continuous training and education

•Incompatible organizational structure and isolated individuals and departments

**10.  Give the Analysis Techniques for Quality Costs?**

 i. Trend Analysis ii. Pareto Analysis

**11. What is Trend analysis?**

 Trend analysis of quality cost shows the changes in cost over time period or change in cost that may occur in future. Time to time comparison of changes in quality cost over time period can be analyzed using trend analysis method.

**12. Define Pareto Analysis?**

 Pareto chart was developed by an Italian economist namely Vilfrado pareto. The pareto chart is a specialized version of a histogram that rank the categories in the chart from most frequent to least frequent. This chart is used to display the pareto principle in action, arranging data so that a few vital factors are causing most of the quality problems.

**UNIT-2**

**1. Give the Quality Hierarchy**

 1. Inspection 2. Quality Control (QC) 3. Quality Assurance (QA) 4. Total Quality Management

**2. What are the pillars of TQM?**

 The four pillars of TQM are: 1. Problem solving discipline 2. Interpersonal skills 3. Teamwork and 4. Quality improvement process

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## 4. Steps to Creating a Total Quality Management System

### **1.  Clarify Vision, Mission, and Values**

### **2.  Identify Critical Success Factors (CSF)**

### **3.  Develop Measures and Metrics to Track CSF Data**

### **4.  Identify Key Customer Group**

### **5.  Solicit Customer Feedback**

### **6.  Develop a Survey Tool**

### **7.  Survey Each Customer Group**

### **8.  Develop Improvement Plan**

### **9. Monitor CSF**

**5. The advantages of total quality management (TQM) include:**

* Cost reduction
* Customer satisfaction*.*
* Defect reduction*.*
* Morale

# 6. The Disadvantages of TQM

## Demands a Change in Culture

## Demands Planning, Time and Resources

## Quality is Expensive

## Takes Years to Show Results

## Not a Quick-Fix Solution

**7. Limitations of TQM**

## Pulling Away Manpower

## Cost in Time and Money

## People Fear Change

## Reduction in Innovation

## 8. TQC

##  Application of quality management principles to all areas of business from design to delivery instead of confining them only to production activities.

**9. Factors in TQM**

* Commitment and understanding from employees
* Quality improvement culture
* Continuous improvement process
* Customer requirements
* Effective control

**10. What is Continuous process improvement?**

 Continuous process improvement is the heart of TQM Process. It consists of measuring key quality parameters and take active steps to improve them. TQM demands structured improvement programmes in all these areas of business administration, customer services, product quality and so on. The main aim of continuous process improvement is to improve the levels of customer satisfaction and reducing the cost of attaining this.

**UNIT-3**

**1. What are the seven quality tools?**

 Cause-and-effect diagram ; Check sheet ; Control chart ; Histogram ; Pareto chart ; Scatter diagram; Stratification

**2. Define the Ishikawa diagram?**

 It is called as Fishbone diagram which a process tool to identify possible causes for a particular effect.

**3. What is meant by benchmarking?**

 The process of gathering information about the „best quality product manufacturing company „ in order to copy , follow and excel, is known as benchmarking. Benchmarking is defined as a systematic method (or) popular TQM tool by which organizations can measure themselves against the best industry practices.

**4. What are the six steps in benchmarking process?**

 1. Deciding what to benchmark 2. Understanding current performance 3. Planning 4. Studying others 5. Learning from the data 6. Using the findings and taking action

**5. What is meant by quality function deployment (QFD)?**

 Quality function deployment (QFD) is a TQM tool which ensures that customer‟s requirements are met throughout the design process and also in the production systems.

**6. What are the Taguchi‟s Quality Loss Functions?**

 Taguchi has defined quality as the loss imparted to society from the time a product is shipped. There are three common quality loss functions. 1. Nominal - the - best 2. Smaller – the – better 3. Larger – the – better

**7. Define Total Productive Maintenance (TPM).**

 Total Productive Maintenance is defined as keeping the running plant and equipment at its highest productive level with the cooperation of all areas of organization.

**8. What is meant by Failure Mode and Effect Analysis (FMEA)?**

 Failure Mode and Effect Analysis (FMEA) is an analytical technique which combines the technology and experience of the people to identify foreseeable failure modes of a product (or) process to plan for its elimination.

**9. What are the types of benchmarking?**

 i. Internal ii. Competitive iii. Process

**10. What is a Kaizen?**

 Kaizen is a Japanese word for the philosophy that defines management’s role in continuously encouraging and implementing small improvements involving everyone. It is the process of continuous improvement in small increments that make the process more efficient, effective, under control and adaptable.

**UNIT-4**

**1. What is meant by Quality circle?**

 QC are the group of people from one work unit who voluntarily meet together on a regular basis to identify , analyze and solve problems relating to quality and other problems problems in other areas. They choose their own problems, discuss among themselves and try to arrive at a viable solution for implementation.

**2. Why do we need a Quality system?**

 In order to assure the quality of a product, the manufacturer must ensure its quality. So, to ensure this quality it is necessary to make a systematic study and control check at every stage of production. It is also essential to take critical review of efforts and achievements of the company with respect to the quality of the product. Thus it is necessary to develop a standard quality system.

**3. Define quality auditing?**

 The International Organization for Standardization (ISO) defines an audit as a “systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and suitable to achieve objects”.

**4. What are the two types quality audit?**

 Quality audit can be classified into two types – internal and external audit.

**5. What do you mean by external and internal audit?**

 An internal audit is conducted by personnel within the organization. An external audit is conducted by people from the organization such as the purchasing party (second – party audit) (or) a certified auditing agency (third – party audit).

**6. How can “Quality audit” be classified on the basis of the area taken into account for the audit?**

 1. System Audit 2. Process Audit 3. Product Audit 4. Adequacy Audit 5. Compliance Audit

**7. What are the steps involved in implementing Quality system?**

 Systematic implementation of quality system involves the following essential steps: 1. Initiating total quality management. 2. Planning to achieve objective in a coordinated manner. 3. Orientation of staff. 4. Implementation 5. Monitoring. 6. Consolidation

# 8. QUALITY plan?

 A quality plan is a document, or several documents, that together specify quality standards, practices, resources, specifications, and the sequence of activities relevant to a particular product, service, project, or contract.

**9**. **Three Elements of a Quality Plan**

* Quality control
* Quality Assurance
* Quality Management

# 10. THE QUALITY PLANNING PROCESS

* Quality planning
* Quality control
* Quality improvement

**UNIT-5**

**1. What is the use of ISO 14000 standard?**

ISO 14000 standard gives the company a background on which to base its Environmental Management System (EMS). This system can be joined with other quality standards and can be implemented together to achieve the organizations environmental targets.

**2. What is a quality manual?**

A quality manual is to be established and maintained. It should include: 1.The scope of the QMS with details and justification for any exclusions. 2. The documented procedure or references to them. 3. A description of the interaction among the QMS processes

**3. What are the equivalents of various standards in Indian Standards System?**

 The equivalents of the above standards in Indian Standards System, developed by the Bureau of Indian Standards are as below: 1.ISO:9000 -IS: 14000 –1988 2.ISO:9001 - IS: 14001 – 1988 3.ISO:9002 - IS: 14002 – 1988 4.ISO:9003 - IS: 14004 – 1989

**4. Name some third party registration system?**

The ISO 9000, QS 9000, ISO 14000 and other quality systems are such third party registration systems that indicate to customers (or) potential customers that the suppliers has a quality system in place and it is being monitored.

**5. What do you mean by ISO 9000 quality standard?**

The ISO 9000 system is a quality management system that can be adopted by all types of organizations belonging to government, public, private, (or) joint sectors. The ISO 9000 system shows the way in creating products by preventing deficiencies, instead of conducting expensive post product inspections and rework.

**6.What are the benefits of ISO?**

Fewer on-site audit by customers. Increased market share. Improved quality, both internally and externally. Improve product and service quality levels from suppliers. Greater awareness of quality by employees. A documented formal systems. Reduced operating costs.

**7. Give the ISO 9001 requirements?**

Scope, Normative Reference, Terms and Definitions, Quality Management System, Management Responsibility, Resource Management, Product Realizatio20

**8. What are the four elements for the planning of ISO 14001?**

 a) Environmental aspects b) Legal and other requirements c) Objectives and targets d) Environmental Management Programs