### UNIT I INTRODUCTION

### PART-A

- 1. Define Quality.
- 2. What are the dimensions of quality?
- 3. Write the equation that would quantify quality.
- 4. What are the essential steps of quality planning?
- 5. Write down the Juan's quality planning.
- 6. What is the cost of quality?
- 7. List out the different quality costs.
- 8. Distinguish between appraisal and failure costs.
- 9. What are prevention costs?
- 10. What is hidden cost?
- 11. Write down the objectives of quality cost evaluation.
- 12. Define TQM & TQM frame.
- 13. Write down the basic concepts of TQM.
- 14. What are the popular awards for quality?
- 15. List out the Indian companies which won Deming award.
- 16. Who are qualities Gurus?
- 17. Define leadership. What are the principles of leadership?
- 18. What is quality council?
- 19. What are the duties of quality council?
- 20. What is quality statement? Give example for each.

### PART-B

- 1. Write down the dimensions of quality and service quality with example.
- 2. Explain Deming's 14 points for improving quality, productivity and competitiveness.
- 3. What is the consumer perception on quality? Explain quality planning?
- 4. Explain the cost of quality in detail.
- 5. Discuss about the basic concepts and principles of TQM?
- 6. Explain TQM and Juran's ten steps to quality improvement.
- 7. What are the barriers for TQM implementation?
- 8. What is the role of senior management?
- 9. Describe the steps involved in strategic planning.
- 10. Enumerate the duties of quality council.

# UNIT – II TQM PRINCIPLES

# PART-A

- 1. Draw a TQM framework.
- 2. Why are customer complaints important?
- 3. What is customer satisfaction?
- 4. Distinguish between Internal and External customers?
- 5. List out the customer prescription of quality
- 6. Why is customer retention important?
- 7. What is meant by motivation?
- 8. Write down the need for empowerment? What are the benefits?
- 9. Why is teamwork required?
- 10. What is the role of team leader?
- 11. What is the role facilitator?
- 12. Distinguish between Kaizen and Kairyo.
- 13. Write about recognition and reward.
- 14. Why is performance appraisal conducted?
- 15. Write about management involvement.
- 16. Write about employee involvement.
- 17. What is performance measure?
- 18. What is Juran's Trilogy?
- 19. What is PDSA cycle?
- 20. Write about 5S

### PART-B

- 1. Explain the Customer satisfaction and Customer complaints in detail.
- 2. Explain Service quality and Customer retention in detail.
- 3. Describe employee involvement and empowerment.
- 4. Why "performance appraisal" and "recognition and reward" are needed?
- 5. What are the various teams? Explain.
- 6. Explain the role and responsibility of tem leader and facilitator.
- 7. Explain Juran's Trilogy.
- 8. Explain: i. 5S concept ii. Kaizen iii. Supplier selection iv. Relationship development
- 9. Describe the performance measure in detail.
- 10. Describe the Maslow's need hierarchy theory and Herzberg's two factor theory for motivation.

### UNIT III TQM TOOLS & TECHNIQUES I

### PART-A

- 1. List out the Seven Tools of quality.
- 2. What is Pareto diagram?
- 3. Draw a Cause and Effect diagram.
- 4. Draw the sample diagrams for the following: i. Graph ii. Histogram iii. Scatter diagram iv. Check sheet
- 5. Define: Mean, Median and Mode.

- 6. Define: Range and Standard deviation.
- 7. What are the measures of central tendency and dispersion?
- 8. What do you mean by population and sample?
- 9. What is control chart?
- 10. What is called control chart for variables?
- 11. What is called control chart for attributes?
- 12. Distinguish between defect and defective?
- 13. Write down Control limits for i. P chart ii. np chart iii.c chart & iv.u chart
- 14. Define Benchmarking.
- 15. What is FMEA?
- 16. Define process capability
- 17. What is process capability index?
- 18. Write down the steps for calculating the process capability index
- 19. What is six sigma?
- 20. What are the new seven management tools of quality?

### PART-B

- 1. Explain the seven tools of quality
- 2. How the pareto analysis done? explain with example
- 3. How is cause and effect diagram constructed? Discuss in detail with a case study.
- 4. Discuss the properties of normal curve. And what are the measures of cental tendency and dispersion?
- 5. Describe the control charts for variable and attributes.
- 6. Describe the control charts for defects or non-conformities
- 7. Describe the process capability analysis concept of six sigma.
- 8. Discuss about the new seven management tools of quality.
- 9. Draw the general structure of house of quality and indicate the constituents.
- 10. Explain Benchmarking with example.

# UNIT – IV TQM TOOLS & TECHNIQUES II

### PART-A

- 1. What is a QFD?
- 2. What are the benefits of QFD?
- 3. What are the steps required to construct an affinity diagram?
- 4. What are the goals of TPM?
- 5. Give the seven basic steps to get an organization started toward TPM?
- 6. What are the major loss areas?
- 7. Define TPM?
- 8. Define quality cost.
- 9. List the categories of quality costs.
- 10. What is meant by cost of prevention?
- 11. List the elements of cost of prevention
- 12. What is cost appraisal?
- 13. What are the costs of appraisal?
- 14. What is meant by cost of internal failures?
- 15. List the components cost of internal failures.

- 16. What is meant by cost of external failures?
- 17. Give the sub-elements of Preventive cost category?
- 18. Give the sub-elements of Appraisal cost category?
- 19. Give the sub-elements of internal failure cost category?
- 20. Give the sub-elements of External failure cost category?

### PART – B

- 1. Explain QFD with a suitable example. What are its advantages and Limitations?
- 2. Explain the concept of Taguchi's quality loss function in detail. Give an example.
- 3. Explain quality costs. What are the barriers for implementing TQM in an industry?
- 4. What are the six major loss areas need to be measured for implementing TPM?
- 5. Explain TPM in detail.
- 6. Discuss the QFD process with new chart and flow diagram.
- 7. Explain the seven step plan to establish the TPM in an organization in detail.
- 8. Explain House of Quality in detail with neat diagram.
- 9. Explain performance measure in detail.
- 10. Explain HOQ with suitable example.

## UNIT V QUALITY SYSTEMS

### PART-A

- 1. Give the ISO 9000 Series of Standards?
- 2. What is the need for ISO 9000?
- 3. Give some other quality systems?
- 4. Enumerate the steps necessary to implement the Quality Management System?
- 5. What are the three sections of QS-9000?
- 6. Give the objectives of the internal audit?
- 7. What are the requirements of ISO 14001?
- 8. What are the benefits of ISO 14000?
- 9. What are the four elements for the checking & corrective action of ISO14001?
- 10. What are the seven elements for the implementation & operations of ISO14001?
- 11. What are the four elements for the planning of ISO 14001?
- 12. Give the types of Organizational Evaluation Standards?
- 13. Give the types of Product Evaluation Standards?
- 14. Define Quality Audits?
- 15. Give the usage of an effective recognition and reward system?
- 16. What are the typical measurements frequently asked by managers and teams?
- 17. Explain the ISO/QS 9000 elements?
- 18. What are the benefits of ISO?
- 19. Give the ISO 9001 requirements?
- 20. What are the methods of actual audit?

#### PART-B

- 1. Explain the steps to be followed in implementing quality system ISO 9001:2000
- 2. What are the requirements of ISO 14000? Explain them briefly.
- 3. Define quality system and explain the evaluation of ISO 9000.

- 4. Explain ISO 14000 with an Industrial application.
- 5. Explain the steps followed to get ISO 9000 certification for an educational institute.
- 6. What are the elements of ISO 9000:2000 quality system?
- 7. Explain in detail about the quality auditing with its different types.
- 8. Discuss in briefly about the documentation of quality system.
- 9. Discuss TQM implementation in manufacturing and service sectors including IT.
- 10. Explain the benefits of EMS. And discuss quality auditing in detail.