Paper Code 001
Paper Title: Fundamentals Concepts in Quality Management System

Instructions: All Questions are Compulsory **Maximum Marks: 30**

1. Differentiate between: **06 Marks**
   a. Large number of users and Multiple users
   b. External Customer and Internal Customer
   c. Quality Assurance and Quality Control

2. Define the following terms: **06 Marks**
   a. Quality Management System
   b. Requirements
   c. Capability
   d. Continual Improvement
   e. Effectiveness
   f. Organizational Structure
   g. Work Environment
   h. Dependability
   i. Preventive Action
   j. Deviation Permit
   k. Inspection
   l. Validation

3. List the various National and International Quality Awards. Discuss in details their use and importance in new business paradigm. **08 Marks**

4. Compare and contrast the views & approaches of Dr. Deming & Dr. Juran. Which one is best for your Organization? **10 Marks**

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Paper Code 002
Paper Title: Preparation & Implementation of ISO 9001:2000

Instructions: All Questions are Compulsory **Maximum Marks: 30**

1.a. What are the advantages of documentation? **04 Marks**

b. Explain the various levels of QMS documentation in details.

2. a. What is meant by document control (Explain approved by, issued by, control copy number, issue number, issue date, revision number & revision date)? **06 Marks**

b. List the six mandatory procedures based on ISO 9001:2000 standard.

c. List seventeen mandatory records called on ISO 9001:2000 standard.

3. a. Explain the process approach model with the diagram as given in ISO 9001:2000 standard.

b. Explain with example stated & implied requirements of a customer. **06 Marks**

4. a. In the product realization what are the controls stipulated in Clause 7. **06 Marks**

b. What is meant by delivery & post delivery activities?

5. Explain what you understand by control of monitoring & measuring devices. **08 Marks**

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Paper Code 003

Paper Title: Audit Functioning

Instructions: All Questions are Compulsory **Maximum Marks: 30**

1. What are the benefits of audits? **02 Marks**

2. What is meant by Quality Audit? Write the process of Quality Audits. **04 Marks**

3. a. What is the purpose of opening meeting? List the agenda points of opening meeting. **06 Marks**
   b. What is the purpose of closing meeting? List the agenda points of closing meeting.

4. Define & explain the following terms: **08 Marks**
   a. Audit Criteria
   b. Audit Evidence
   c. Non Conformity
   d. Surveillance Audit

5. a. What is meant by accreditation? List five major accreditation bodies. **10 Marks**
   b. What is meant by certification body? List five major certification bodies in India.

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Paper Code 004

Paper Title: Fundamentals in Total Quality Management

Instructions: All Questions are Compulsory **Maximum Marks: 30**

1. What do you mean by TQM philosophy? **04 Marks**

2. Define: **04 Marks**
   a. Delegation
   b. Empowerment
   c. Cultural Transformation
   d. Quality Control Circles

3. List the major TQM tools. Discuss in details any two TQM tools helpful for your organization/ process. **06 Marks**

4. Write a case study of TQM implementation & evaluation of continuous improvement in any manufacturing/service sector (preferably at your own work place). **06 Marks**

5. Identify the major problems/barriers at the time of Preparation & Implementation of TQM culture in any organization. List the elimination methods of all problems/barriers. **10 Marks**

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Paper Code 005
Paper Title: Applied Statistics

Instructions: All Questions are Compulsory **Maximum Marks: 30**

1. Define: **04 Marks**
   a. Statistical Methods
   b. Statistical Data

2. Collect around 20 pairs of sample data for which the relationship has to be studied. Draw a scatter diagram (horizontal & vertical axis) with cause on X axis and effect on Y axis. **06 Marks**

3. a. What do you mean by SQC? **08 Marks**
   b. Discuss in details the use & importance of Control Chart in modern manufacturing system.

4. The dimensions of a component in coded units for 20 samples of size 4 are given below: **12 Marks**

Sample No.	**Observations**			
	(1)	**(2)**	**(3)**	**(4)**
1.	62.8	61.0	65.2	67.6
2.	64.8	64.2	64.2	63.8
3.	62.0	63.4	64.2	62.7
4.	63.2	65.4	64.4	64.2
5.	61.8	60.0	59.6	62.0
6.	61.8	62.2	62.0	61.4
7.	62.6	60.2	62.4	61.0
8.	62.6	61.0	64.8	62.8
9.	60.2	59.6	62.0	60.8
10.	64.2	64.2	63.2	63.6
11.	62.2	62.0	60.8	58.2
12.	60.6	60.2	60.6	60.8
13.	61.2	61.8	61.4	61.6
14.	62.2	62.0	61.6	60.4
15.	61.2	61.8	63.8	64.0
16.	61.6	62.0	60.6	60.2
17.	68.8	61.0	59.4	59.6
18.	61.8	61.0	62.4	62.0
19.	61.0	61.2	62.0	60.0
20.	62.2	62.4	61.0	59.0

1. Draw a histogram.
2. Draw X, R charts and X, S charts.
3. Give your conclusions and comments.
4. Estimate process capability and percent non-conformance if process were under control at a) process mean observed and b) desired specified mean.

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