

**R.N.G.PATEL INSTITUTE OF TECHNOLOGY-RNGPIT**  
(An Autonomous Institute U/s UGC Act 1956)

**B.Voc. SEMESTER-III, SEMESTER END EXAMINATION – WINTER 2025**

**SUBJECT CODE: 1PT302**

**DATE: 20-12-2025**

**SUBJECT NAME: TOTAL QUALITY MANAGEMENT**

**TIME: 11:00 AM to 01:00 PM**

**TOTAL MARKS: 50**

**Instructions**

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Attempt all questions in the question paper.
3. The figures to the right of each question indicate full marks. Make suitable assumptions with proper justification wherever required.
4. Simple, non-programmable scientific calculators are permitted.
5. BL - Cognitive Level (As per Revised Bloom's Taxonomy) (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

		<b>Marks</b>	<b>BL</b>	<b>CO</b>
<b>Q.1</b>	(a) List and briefly explain the three key elements of JIT.	<b>05</b>	<b>U</b>	<b>2</b>
	(b) Differentiate between the Kanban system and the Two-Bin system.	<b>05</b>	<b>U</b>	<b>2</b>
<b>Q.2</b>	(a) What is Total Quality Management? Give the need for Total Quality Management.	<b>05</b>	<b>R</b>	<b>1</b>
	(b) Define Principles of Total Quality Management and list out Pillars for Total Quality Management.	<b>05</b>	<b>R</b>	<b>1</b>
<b>OR</b>				
<b>Q.2</b>	(a) Define Deming Philosophy and also explain principles of Deming Philosophy.	<b>05</b>	<b>U</b>	<b>1</b>
	(b) What is Quality Council? List duties of Quality Council.	<b>05</b>	<b>R</b>	<b>1</b>
<b>Q.3</b>	(a) List the 7 QC tools. Explain any one with example.	<b>05</b>	<b>U</b>	<b>3</b>
	(b) What is the 5S technique? List its five steps and their importance.	<b>05</b>	<b>U</b>	<b>3</b>
<b>OR</b>				
<b>Q.3</b>	(a) Explain the concept of Kaizen with its benefits in continuous improvement.	<b>05</b>	<b>U</b>	<b>3</b>
	(b) Draw and explain the graph showing the optimum cost of quality.	<b>05</b>	<b>U</b>	<b>3</b>
<b>Q.4</b>	(a) Give full form of ISO and explain the importance of implementing ISO.	<b>05</b>	<b>R</b>	<b>4</b>

(b) Explain ISO 9000 and ISO 14000 in brief 05 U 4

**OR**

**Q.4** (a) List advantages, disadvantages and application for implementing ISO. 05 R 4

(b) List the advantages and disadvantages of implementing Quality Management Standards (ISO/QS). 05 U 4

**Q.5** (a) Define Business Process Reengineering (BPR) and explain its primary objective. 05 R 5

(b) What is benchmarking in the context of quality management? 05 R 5

**OR**

**Q.5** (a) Define Total Productive Maintenance (TPM) and explain its key pillars. 05 R 5

(b) Compare TPM and TPS in terms of their approach to quality and efficiency. 05 R 5

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