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

B.Voc. SEMESTER-I, SEMESTER END EXAMINATION – WINTER 2025

SUBJECT CODE: 1PT101   **DATE: 15-12-2025**
SUBJECT NAME: MACHINE TOOL TECHNOLOGY
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.

			Marks	BL	CO
Q.1	**(a)**	Explain the primary and secondary motions in machine tools with examples.	**05**	**U**	**1**
	(b)	Classify the lathe machines.	**05**	**R**	**2**
Q.2	**(a)**	Draw a line diagram of lathe machine and explain its parts in brief.	**05**	**U**	**2**
	(b)	Explain any two operations performed on a lathe machine with a neat sketch.	**05**	**U**	**2**

OR

			Marks	BL	CO
Q.2	**(a)**	Enlist different type of chucks used in a lathe machine and explain any one of them with a neat sketch.	**05**	**U**	**2**
	(b)	Differentiate between a capstan lathe and a turret lathe.	**05**	**U**	**2**
Q.3	**(a)**	Classify boring machine.	**05**	**R**	**3**
	(b)	Draw a neat schematic diagram of sensitive drill machine.	**05**	**U**	**3**

OR

			Marks	BL	CO
Q.3	**(a)**	Enlist different types of drilling machine.	**05**	**R**	**3**
	(b)	Draw the line diagram of a commonly used twist drill with its nomenclature.	**05**	**U**	**3**

Q.4	**(a)**	Explain up milling and down milling with a neat sketch.	**05**	**U**	**4**
	(b)	Enlist different types of milling cutters.	**05**	**R**	**4**

OR

Q.4	**(a)**	Enlist various milling operations and explain any one of them.	**05**	**U**	**4**
	(b)	Classify milling machine.	**05**	**R**	**4**

Q.5	**(a)**	Differentiate between a shaper and a planer machine.	**05**	**U**	**5**
	(b)	Enlist various parts of slotting machine with neat sketch.	**05**	**R**	**5**

OR

Q.5	**(a)**	State the operation carried out on shaper machine and explain any one of them.	**05**	**U**	**5**
	(b)	Classify shaper machine in detail.	**05**	**R**	**5**

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