

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: 1SRE301

DATE: 16-12-2025

SUBJECT NAME: INDUSTRIAL SAFETY

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) What is industrial safety? Explain its importance in industries.	05	R	1
	(b) What are emergency symbols? Explain the meaning of any three.	05	R	1
Q.2	(a) Describe Any Two Methods of Earthing with Simple Sketches.	05	R	2
	(b) Why are clearance and creepage distances necessary in electrical equipment?	05	R	2
OR				
Q.2	(a) List and explain the factors affecting earth resistance.	05	R	2
	(b) What is electric shock? State its effects on the human body.	05	R	2
Q.3	(a) Explain the difference between HAZID and HAZOP methods of risk analysis.	05	U	3
	(b) What are the common types of workplace hazards found in renewable energy or electrical industries?	05	U	3
OR				
Q.3	(a) Explain the step-by-step process of Hazard Identification and Risk Assessment (HIRA).	05	U	3
	(b) What is HAZOP study? Describe its importance and main procedure.	05	U	3

- Q.4** (a) What is PPE? Explain its importance for workers in industry. **05 R 4**
(b) What precautions should be taken while selecting and using PPE? **05 R 4**

OR

- Q.4** (a) What is First Aid? Explain the basic steps of giving CPR in case of emergency. **05 R 4**
(b) List different types of PPE and write one use for each. **05 R 4**

- Q.5** (a) Define Emergency Preparedness. What are the main elements of an Emergency Response Plan (ERP)? **05 R 5**
(b) Explain the procedure for evacuation and emergency drills in an industrial area. **05 U 5**

OR

- Q.5** (a) What are the steps to be taken during a fire emergency in the workplace? **05 R 5**
(b) What are the common types of industrial emergencies, and how can proper training help in reducing their impact? **05 U 5**
