



**K. K. Wagh Institute of Engineering Education & Research, Nashik**  
(An Autonomous Institute From A.Y. 2022-23)

InSem Examination-II Summer2025	
Exam Seat No.:	
Academic Year:2024-2025	Semester:VI
Class: TY	Program:B.Tech
Branch Code: ELE	Pattern:2022
Name of Course:Electrical Installation, Maintenance and Testing	Course Code: ELE223012
Max. Marks:30	Duration:1.15 Hrs.

**Instructions:** Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 01 page.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.

**Marks CO**

**Question No. 1**

- 1 a) List the essential contents of a first aid box and explain their uses in electrical injury cases. (7) CO1

**Question No. 2**

- 2 a) Explain the key provisions of statutory regulations related to electrical safety, including the Electricity Supply Regulations, Factory Act, and Indian Electricity Rules of the Central Electricity Authority (CEA). (8) CO1

**OR**

- 2 b) State the types of fire extinguishers used for various fire accidents and explain their working principles. (8) CO1

**Question No. 3**

- 3 a) Explain the difference between equipment earthing and system grounding with suitable examples (7) CO2

**Question No. 4**

- 4 a) Describe the concept of tolerable step and touch voltages and their significance in earthing design. (8) CO2

**OR**

- 4 b) List out different methods used for measuring earth resistance and describe earth tester method in detail with diagram. (8) CO2

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