

ELECTRICAL INSTRUMENTS AND MEASUREMENT**Time : 2.30 Hours]****[Maximum Marks : 50****[Minimum Marks : 17****NOTES :**

- i) Attempt All Questions.
- ii) Students are advised to specially check the Numerical Data of question paper in both versions. If there is any difference in Hindi Translation of any question, the students should answer the question according to the English version.
- iii) Use of Pager and Mobile Phone by the students is not allowed.

Q1) Attempt any two parts of following:**[2 × 5 = 10]**

- a) Explain concept of measurement and instruments.
- b) Write types of electrical measuring instruments.
- c) Write essentials of indicating instruments.

Q2) Attempt any two parts of following:**[2 × 5 = 10]**

- a) Explain concept of ammeter.
- b) Explain working principle of moving coil instruments.
- c) Write application of moving coil instruments.

Q3) Attempt any two parts of following:**[2 × 5 = 10]**

- a) Write working principle of wattmeters.
- b) Explain digital wattmeters.
- c) What are Energymeters?

Q4) Attempt any two parts of following:**[2 × 5 = 10]**

- a) Write merits of single phase energy meters.
- b) Write working principle of maximum demand indicators.
- c) Explain miscellaneous measuring instruments.

Q5) Attempt any two parts of following:**[2 × 5 = 10]**

- a) Define Electrical instruments.
- b) Explain LCR meters.
- c) Explain smart metering system.

नोट : सभी प्रश्न अनिवार्य हैं ।

प्र.1) निम्नलिखित में से कोई दो खण्ड करें ।

[2 × 5 = 10]

- क) Measurement और Instruments के Concept की व्याख्या करें ।
- ख) Electrical measuring instruments के प्रकार लिखें ।
- ग) Indicating instruments के essentials लिखें ।

प्र.2) निम्नलिखित में से कोई दो खण्ड करें ।

[2 × 5 = 10]

- क) Ammeter के Concept की व्याख्या करें ।
- ख) Moving coil instruments के कार्य सिद्धांत की व्याख्या करें ।
- ग) Moving coil instruments के उपयोग लिखें ।

प्र.3) निम्नलिखित में से कोई दो खण्ड करें ।

[2 × 5 = 10]

- क) Wattmeters का कार्य सिद्धांत लिखें ।
- ख) Digital Wattmeters की व्याख्या करें ।
- ग) Energymeters क्या हैं?

प्र.4) निम्नलिखित में से कोई दो खण्ड करें ।

[2 × 5 = 10]

- क) Single phase energy meters के गुण लिखें ।
- ख) Maximum demand indicators का कार्य सिद्धांत लिखें ।
- ग) Miscellaneous measuring instruments की व्याख्या करें ।

प्र.5) निम्नलिखित में से कोई दो खण्ड करें ।

[2 × 5 = 10]

- क) Electrical instruments की व्याख्या करें ।
- ख) LCR meters की व्याख्या करें ।
- ग) smart metering system की व्याख्या करें ।

