

Duration: 3hrs

Max Marks: 80

Please check whether you have got the right question paper

- NB:** a) Question number 1 is compulsory
b) Attempt any **3** questions from remaining questions
c) Right hand side figures indicates marks

Que 1. Attempt any four questions

[20]

- Draw and Explain Components of Generalized measurement system.
- Explain Auto Ranging and Auto Zero Adjustments in Digital Instruments.
- Compare CRO and DSO.
- Explain Selection Criteria of Transducers.
- Draw and Explain Data logger.
- Draw and Explain Side glass tube method for level measurement.

Que 2. Attempt the following questions

[20]

- Explain different errors in measurement also explain how to eliminate/Reduce Errors.
- Draw and Explain Electronics Voltmeter using Transistors and FETs. Justify which one is suitable for voltage measurement.

Que 3. Attempt the following questions

[20]

- Draw and Explain Measurement of Inductance using Maxwell Bridge and Hey Bridge. Justify which one is suitable for inductance measurement.
- Draw and Explain Kelvin's Double Bridge for Low resistance measurement.

Que 4. Attempt the following questions

[20]

- Draw and Explain Experimental setup for measurement of Frequency and Phase using Lissajous Figures.
- Draw and Explain DSO with features like Roll, Refresh, Storage Mode and Sampling Rate also List applications of DSO.

Que 5. Attempt the following questions

[20]

- Draw and Explain Linear Variable Differential Transformer with its characteristics. List applications of it.
- Draw and Explain Rotameter for flow measurement.

Que 6. Attempt the following questions

[20]

- Draw and Explain Dead Weight Tester for pressure measurement.
- Draw and Explain PC based Instrumentation System.