

Time: 3hrs

Total marks : 80

Note: i Attempt four questions, question no 1 is compulsory.

- ii. Assume suitable data where ever required.
- iii. Answers to the questions should be grouped together.
- iv. Figure to the right of question indicates full marks.

Q1. Attempt any Four:

20

- a) Explain working of RTD and mention its range.
- b) Draw block diagram of generalised measurement system and explain its components
- c) Write note on piezoelectric transducers.
- d) Significance of three and half digit display
- e) Explain Alternate mode and Chop mode in Dual trace oscilloscope

Q2. a. Define Q factor and explain working of Q meter for Q factor measurement

10

b. Draw and explain Kelvin's Double bridge and it's application in very low resistance measurement

10

Q3. a) Draw neat block diagram of CRO and explain its' function and comment on role of delay line in CRO.

10

b) Explain single and multichannel data acquisition system with neat diagram

10

Q4. a) Draw and explain Maxwell bridge and its application .

10

b) Define power and energy and explain working of a single phase energy meter.

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Q5.a) Discuss DSO with the help of block diagram along with various modes of operation also explain its applications.

10

b) What are various A/D converting Techniques ? Explain any one in detail.

10

Q6. a) Explain Block diagram and application of wave analyzer

10

b) Draw and explain working of Capacitive transducer for level measurement.

10