

IMPORTANT QUESTIONS

1.
 - a) What is piezoresistive effect?
 - b) Why platinum is considered most suitable material for RTDs?
 - c) Differentiate primary and secondary transducers.
 - d) What is decade counter?
 - e) What are the uses of a waveform analyzer.
2.
 - a) Why FFT spectrum analysis is limited to low frequency applications?
 - b) What is signal generator?
 - c) Why direct coupled amplifier dc voltmeter commonly used?
 - d) What is meant by retrace time?
 - e) What is graticule?
3.
 - a) Why are strain gauges called the piezoresistive strain gauges?
 - b) Name materials for making a thermocouple to work at 400°C to $1,400^{\circ}\text{C}$.
 - c) Differentiate analog and digital transducers.
 - d) What is frequency counter?
 - e) Why RF spectrum analyzers are more important than AF ones?
4.
 - a) Why are buffer amplifiers used in signal generators?
 - b) What is function generator?
 - c) What is the utility of Time base circuit?
 - d) Enlist the applications of CRO.
 - e) What are various focusing techniques?
5.
 - a) Why is delay line used in vertical section of an oscilloscope.
 - b) What is Secondary Emission? Where aquadag coating is used and why?
 - c) What is a lissajous pattern?
 - d) Differentiate between active and passive transducers.
 - e) What is Gauge Factor?

Q.6 What is the difference between dual trace and dual beam oscilloscope? How frequency can be measured by oscilloscope.

Q.7 Describe the principle of working and block diagram of Digital storage oscilloscope.

Q.8 Draw and explain the block diagram of a sampling oscilloscope.

Q.9 Explain the features of high frequency CRO. What are the various types of probes used for CRO.

Q.10 Explain different types of Analog storage oscilloscope.

Q.11 Describe the methods of measurement of power at radio frequencies.

Q.12 Describe the circuit and working of a Q meter. Also describe its applications.

Q.13 Explain the types of DC and AC voltmeter.

Q.14 Draw and explain balanced bridge transistorized voltmeter.

Q.15 Describe true RMS reading AC voltmeter in detail.

Q.16 What is Harmonic Distortion? Discuss Harmonic distortion Analyzer based on Fundamental Suppression Type? Draw & describe block Diagram of Heterodyne Wave Analyzer.

Q.17 What is Universal Counter? Explain its operation with suitable diagram for

- A. Time Period
- B. Frequency
- C. Time interval Measurement?

Explain working of Decade Counter Assembly.

Q.18 Discuss block diagram and working of spectrum analyzer

Q.19 Discuss Digital Frequency Meter with block Diagram.

Q.20 Describe the term total harmonic distortion. Describe the functioning of Harmonic Distortion meter.

Q.21 What is Seeback Effect? Explain a transducer based on this effect? Explain working of LVDT.

Q.22 Draw and describe block diagram of DC and Ac signal conditioning system. Draw and describe block diagram of Data acquisition system.

Q.23 Explain the principle of working of a capacitive transducer. Give their advantages and disadvantages.

Q.24 Describe the construction, working principle and application of piezoelectric transducer.

Q.25 Write short notes on

Strain gauge

Classification of transducer

Photo electric Transducer