

Theory Questions on Sensors

- Q.1: What are Ultrasonic waves? State magnetostriction effect.
- Q.2: Explain the piezoelectric and inverse piezoelectric effect.
- Q.3: Draw the structure of quartz crystal and explain its various axis and its cuts.
- Q.4: Discuss about the classification of Sensors.
- Q.5: What are thermocouples, thermistors, thermostats?
- Q.6: Define Inversion Temperature, Neutral temperature and show their relation with the Seebeck coefficients.
- Q.7: What is the role of an image sensor in a digital camera system?
- Q.8: What are the two most common types of image sensors used in digital imaging? Describe their differences.
- Q.9: Explain the process of how an image sensor captures light and converts it into an electrical signal.
- Q.10: What is the difference between a CCD (Charge-Coupled Device) and a CMOS (Complementary Metal-Oxide-Semiconductor) image sensor?
- Q.11: State the phenomenon of Seebeck effect and Peltier effect (inverse Seebeck effect).

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