

10.2 - Semiconductors

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- (1998) Describe the function of each of;
 - the electron gun
 - the deflection system and
 - the display system of the Cathode ray Oscilloscope.
- (1999) Distinguish between insulators, semi-conductors and metals as far as conduction is concerned.
- (2000) Distinguish between metals and semiconductors in terms of energy bands.
- (2007) How does the arrangement of the energy level in a semiconductor differ from that of an insulator?
- (2013) Mention one application of LED. What type of a semiconductor is it?
- (2014) What is light emitting diode (LED).
- (2014) Give three advantages of LED's lamp in radio and other electronic system over filament lamps.
- (2014) What is the basic difference between good conductors and semiconductors.
- (2015) Mention four important properties of a semiconductor.
- (2015) Applying the concept of doping, explain how a free electron and a positive charge can be created in a semiconductor crystal.
- (2016) What is the importance of doping as applied to semiconductors?
- (2016) Distinguish between $n-$ type and $p-$ type semiconductors. Give three points.
- (2016) Discuss the mode of action of each of the following sensors;
 - Thermistor (TH).
 - Light Dependent Resistor (LDR).
- (2017) Define the term semiconductor.
 - Give three examples of semiconductor materials.
- (2017) Outline two factors on which electrical conductivity of a pure semiconductor depends.

- (2017) Explain the meaning of the following terms:
 - $P-$ type semiconductor.
 - $N-$ type semiconductor.
- (2018) List two chief properties of semiconductors.
- (2018) Why is it easier to establish the current in a semiconductor than in an insulator?
- (2018) Distinguish between conductors and semiconductors on the basis of their energy band structures.