

Electrical and Electronics Engineering Material Science Quiz Questions Pdf

1. Magnetic cores required for RF applications have
 - a. High hysteresis and eddy current losses.
 - b. High hysteresis and low eddy current losses.
 - c. Low hysteresis and high eddy current losses.
 - d. Low hysteresis and eddy current losses.Ans: D
2. Metallic copper is
 - a. Paramagnetic substance
 - b. Diamagnetic substance
 - c. Ferromagnetic substance
 - d. Ferrimagnetic substanceAns: B
3. All magnetic materials lose their magnetic properties when
 - a. Cooled to low temperature
 - b. Heated to high temperature
 - c. Kept in an aluminium box
 - d. Kept in vacuumAns: B
4. For an insulating material, dielectric strength and dielectric loss should be respectively
 - a. high and high
 - b. low and high
 - c. high and low
 - d. low and lowAns: C
5. Carburization of steel
 - a. Improves its fatigue resistance
 - b. Makes it less brittle
 - c. Makes it corrosion resistant
 - d. Decreases its strengthAs: A
6. High frequency transformer cores are generally made from
 - a. Mu-metal
 - b. Mone-metal
 - c. Ferrites
 - d. CobaltAns: C
7. A heterostructure laser is better than a diode laser (injection laser) because of its
 - a. Low cost

- b. Long wavelength emission
- c. Low threshold current
- d. Nonlinear operation

As: C

8. In He-Ne laser, population inversion is achieved by

- a. Optical pumping
- b. Electric discharge
- c. Thermal pumping
- d. Inelastic atomic collisions

Ans: D

9. Soft iron is used to manufacture electromagnets because it has

- a. High retentivity
- b. High coercive field
- c. Low retentivity
- d. Low coercive field

Ans: D

10. Which one of the following pair is NOT correctly matched?

- a. Copper – Diamagnetic
- b. Sodium – Antiferromagnetic
- c. Iron – Ferromagnetic
- d. Ferrite – Ferrimagnetic

Ans: B

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