Electrical Materials Objective Questions and Answers Pdf

Question: 1

The unit of ionization potential is the same as that of

- (A) radiation's frequency
- (B) electron affinity
- (C) electron energy
- (D) electronic charge

View Answer

Ans: B

electron affinity

Question: 2

Which material among the following possesses excellent dielectric properties and good reliability for use in making capacitors?

- (A) chromium oxide
- (B) tin oxide
- (C) silicon dioxide
- (D) silicon monoxide

View Answer

Ans: A

chromium oxide

Question: 3

Magnetic susceptibility is

(A) proportional to temperature but independent of magnetizing field

- (B) proportional to temperature but inversely proportional to magnetizing field
- (C) inversely proportional to both temperature and magnetic field
- (D) inversely proportional to temperature but independent of magnetizing field View Answer

Ans: D

inversely proportional to temperature but independent of magnetizing field

Question: 4

Dielectric loss due to ionization is peculiar to

- (A) gaseous dielectrics
- (B) non ferrous dielectrics
- (C) non metallic dielectrics
- (D) non uniform dielectrics

View Answer

Ans: A

gaseous dielectrics

Question: 5

The electrical conductivity of copper reduces with the addition of a small amount of nickel because

(A) the electrons of copper become bound to nickel and are not free to move

(B) less free electrons are available for conduction

(C) nickel is ferromagnetic

(D) the mobility decreases due to creation of new scattering for electrons

View Answer

Ans: D

the mobility decreases due to creation of new scattering for electrons

Question: 6

Lattice thermal conductivity is more than electronic thermal conductivity in

- (A) semiconductors
- (B) dielectric
- (C) metals
- (D) all of these

View Answer

Ans: B

dielectric

Question: 7

At Neel temperature

- (A) permeability is maximum
- (B) permeability is minimum
- (C) susceptibility is maximum
- (D) susceptibility is minimum

View Answer

Ans: C

susceptibility is maximum

Question: 8

In electrical machines the material preferred for pole shoes of electromagnets is

- (A) aluminium
- (B) lead
- (C) copper
- (D) pure iron

View Answer

- Ans: D
- pure iron

Question: 9

The resistivity component arising due to impurities and defects is commonly known as

- (A) joule's component of resistivity
- (B) thermal component of resistivity
- (C) residual component of resistivity
- (D) none of the above

View Answer

Ans: C

residual component of resistivity

Question: 10

Which of the following dielectric materials possess maximum dielectric strength?

(A) carbon dioxide

- (B) mica
- (C) glass
- (D) bakelite

View Answer

Ans: B

mica

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