Physics - 12th Class Physics Chapter 6 Short Questions Preparation

Q1. Define retantivity.

Ans 1: When the current is reduced to zero,the material still remains strongly magnetized which is known as retantivity.

Q2. Distinguished between a valence and a conduction band.

Ans 1: Valence bond: The energy band occupied by valence electrons is called the valence band.

Ans 2: Conduction band:The energy band are occupied by free electrons is called the conduction band.

Q3. Define polymeric solid with example.

Ans 1: Polymers are solid materials with a structure that is intermediate between order and disorder,They can be classified as partially or poorly crystalline solids.For example plastic,rubber.

Q4. Define coercivity of a material.

Ans 1: To demagnetize the material the magnetizing current is reserved and increased to reduce the magnetization to zero.This is known as coercive current,And this process is called coercivity.

Q5. Define elastic limit and Yield point.

Ans 1: The greatest stress that a material can endure without any permanent deformation is called elastic limit.This kind of behavior is called elasticity.
Yield point: The point on the stress-strain curve beyond which if stress is further increased then permanent deformation takes place in the given specimen.This is called yield point.

Q6. What is meant by hysteresis loss?

Ans 1: The area of the loop is the measure of the energy needed to magnetize and demagnetize the specimen during each cycle of the magnetizing current.This is energy required to do work against internal friction of the domains,this work is dissipated as heat.It is called hysteresis loss.

Q7. Define volumetric strain.

Ans 1: When the applied stress change the volume,then the change in volume per unit volume is called volumetric strain.

Q8. What are paramagnetic Substance?Give an example

Ans 1: The solid in which the orbital and spin axes of the electrons in an atom are so oriented that their magnetic field support each other are called paramagnetic substance.For example ozone,platinum etc

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Q9. Describe energy band picture of insulators.

Ans 1: Insulators are those materials in which valence electron are bound to very tight to their atoms and are not free.In terms of energy bands,it means that an insulator has:

- An empty conduction band
- A full valence band
- A large energy gap

Q10. What is critical temperature in super conductivity?

Ans 1: The temperature below which the resistivity of a material falls to zero is called critical temperature.For example mercury.
