



Video Solution on Website:-

<https://physicsaholics.com/home/courseDetails/74>

Video Solution on YouTube:-

https://youtu.be/_48YAjetnWM

Written Solution on Website:-

<https://physicsaholics.com/note/notesDetailis/56>

- Q 1. The permanent magnet is made from which one of the following substances
(a) Diamagnetic (b) Paramagnetic
(c) Ferromagnetic (d) Electromagnetic
- Q 2. The magnetic susceptibility is
(Symbols have their usual meaning)
(a) $\chi = \frac{I}{H}$ (b) $\chi = \frac{B}{H}$
(c) $\chi = \frac{M}{V}$ (d) $\chi = \frac{M}{H}$
- Q 3. The magnetic susceptibility is negative for
(a) paramagnetic material only
(b) ferromagnetic material only
(c) paramagnetic and ferromagnetic materials
(d) diamagnetic material only
- Q 4. Magnetic permeability is maximum for
(a) Diamagnetic substance (b) Paramagnetic substance
(c) Ferromagnetic substance (d) All of these
- Q 5. The moment of a magnet ($15\text{cm} \times 2\text{cm} \times 1\text{cm}$) is 1.2 Am^2 . What is its intensity of magnetization?
(a) $4 \times 10^4 \text{ A/m}$ (b) $2 \times 10^4 \text{ A/m}$
(c) 10^4 A/m (d) None of these
- Q 6. The magnetic susceptibility of a paramagnetic substance is 3×10^{-4} Is placed in a magnetising field of $4 \times 10^{-4} \text{ A/m}$. Then the intensity of magnetisation in the units of A/m is
(a) 1.33×10^8 (b) 0.75×10^{-8}
(c) 12×10^{-8} (d) 14×10^{-8}
- Q 7. Relative permeability of iron is 5500. What is its magnetic susceptibility?
(a) 5551 (b) 5491
(c) 5499 (d) 5501
- Q 8. A rod of ferromagnetic material with dimension $10 \times 0.5 \times 0.2 \text{ cm}^3$ is placed in a magnetic field of strength $0.5 \times 10^4 \text{ Am}^{-1}$ as a result of which a magnetic moment of 5 Am^2 is produced in the rod. The value of magnetic induction will be
(a) 0.358 T (b) 0.54 T



(c) 6.28 T

(d) 2.5129 T

- Q 9. The mass of iron rod is 110 gm, its magnetic moment is 20 Am^2 . The density of iron is 8 gm/cm^3 . The intensity of magnetization is nearly
- (a) $2 \times 10^5 \text{ Am}^{-1}$ (b) $2.26 \times 10^6 \text{ Am}^{-1}$
(c) $1.7 \times 10^6 \text{ Am}^{-1}$ (d) $1.4 \times 10^6 \text{ Am}^{-1}$
- Q 10. The relative permeability of a substance X is slightly less than unity and that of substance Y is slightly more than unity then –
- (a) X is paramagnetic and Y is ferromagnetic
(b) X is diamagnetic and Y is ferromagnetic
(c) X and Y both are paramagnetic
(d) X is diamagnetic and Y is paramagnetic

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Answer Key

Q.1 c	Q.2 a	Q.3 d	Q.4 c	Q.5 a
Q.6 c	Q.7 c	Q.8 c	Q.9 d	Q.10 d