

2. R_r of half-wave antenna is
 (a) 178.5Ω (b) 78.5Ω
 (c) 173.1Ω (d) 73.1Ω .
3. In anisotropic medium, the direction of K and S are _____
 (a) same (b) zero
 (c) not same (d) infinite.
4. The electrons are bound to the _____ in an atom by linear restoring force.
 (a) Nucleus (b) Protons
 (c) Hydrogen (d) Oxygen.
5. The _____ of light is a universal constant
 (a) phase (b) amplitude
 (c) velocity (d) wavelength.

Fill up the blanks :

6. Maxwell equations are invariant under Lorentz transformation.
7. The factor $\frac{1}{2}(1 + \cos^2 \phi)$ is called degree of depolarisation.

8. Electromagnetic wave are _____ in nature.
9. Power radiated by an electric _____ is proportional to the fourth power of the frequency.
10. The total bound charge on a dielectric is _____.

Match the following :

11. χ_e (a) Impedance of the medium
 12. τ (b) Scattering angle
 13. Z (c) Relaxation time
 14. ϕ (d) Electromagnetic field tensor
 15. $F_{\mu\nu}$ (e) Electric susceptibility.

Answer the following in 1 or 2 sentences :

16. What is meant by Cerenkov-radiation?
 17. What is meant by Rayleigh Scattering?
 18. Define current density.
 19. Define poynting vector.
 20. Define the electromagnetic field tensor.