50 NEET Physics Most Expected Questions for 2026

Mechanics & Properties of Matter

1. Dimensional formula of Universal Gravitational Constant (G).

2. Calculation of torque on a wheel given moment of inertia and angular acceleration.

3. Escape velocity of a planet with twice the mass and half the radius of Earth.

4. Terminal velocity of a sphere falling through a viscous fluid.

5. Work done by a conservative vs. non-conservative force in a closed loop.

6. The ratio of kinetic energy and potential energy at a height h = R/2 from Earth's surface.

7. Change in length of a wire when a mass is suspended (Young's Modulus).

8. Bernoulli's Principle application in a horizontal pipe with varying cross-sections.

9. Moment of inertia of a thin rod about an axis passing through its end.

10. Angle of projection for which horizontal range is equal to maximum height.

Heat, Thermodynamics & Oscillations

11. Efficiency of a Carnot engine working between 300 K and 600 K.

12. Relationship between C_p and C_v for a diatomic gas.

13. Average kinetic energy of a gas molecule at temperature T.

14. Net work done in a cyclic P-V diagram.

15. Time period of a simple pendulum in a lift accelerating upwards.

16. The phase difference between velocity and displacement in SHM.

17. Fundamental frequency of an open organ pipe vs. a closed organ pipe.

18. Doppler Effect: Change in frequency when the source moves toward a stationary observer.

19. Newton's Law of Cooling: Time taken to cool from 60° C to 50° C.

20. Calculating root mean square (RMS) speed of Oxygen at 27° C.

Electrostatics & Current Electricity

21. Electric field intensity due to an infinite line charge.

22. The equivalent capacitance of capacitors in a ladder network.

23. Torque on a dipole placed in a uniform electric field.

24. Drift velocity of electrons in a copper wire when current is doubled.

25. Kirchhoff's Voltage Law (KVL) application in a multi-loop circuit.

26. Potentiometer: Finding the internal resistance of a cell.

27. Heat produced in a resistor when current varies with time I=at+b.

28. Resistance change when a wire is stretched to double its length.

29. Energy stored in a parallel plate capacitor with a dielectric medium.

30. The force between two long parallel current-carrying conductors.

Magnetism, EMI & AC

31. The magnetic field at the center of a circular current-carrying loop.

32. Moving Coil Galvanometer: Converting it into a Voltmeter.

33. Self-inductance of a solenoid with N turns.

34. The power factor of an LCR circuit at resonance.

35. The peak value of current in an AC circuit given V_{rms} and Z.

36. Magnetic susceptibility of paramagnetic vs. diamagnetic materials.

37. Lenz's Law and the conservation of energy.

38. Step-up transformer: Calculating secondary voltage given the turn ratio.

39. The frequency of electromagnetic waves in the X-ray vs. UV spectrum.

40. Displacement current in a charging capacitor.

Optics & Modern Physics

41. Resolving power of a microscope when wavelength is decreased.

42. Refractive index calculation using Brewster's Angle.

43. Lens Maker's Formula: Finding focal length in a medium other than air.

44. The ratio of de-Broglie wavelengths of a proton and an alpha particle.

45. Photoelectric Effect: Finding the stopping potential given the threshold frequency.

46. Binding energy per nucleon for Iron-56.

47. Half-life calculation: Amount of substance remaining after n half-lives.

48. Logic Gates: Identifying the output of a combination of NAND gates.

49. Bohr's Model: Radius of the 3rd orbit of He^{+}.

50. Forward vs. Reverse bias characteristics of a p-n junction diode.

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