

Haryana Board Class 12 Physics 2026 Question Paper (Memory-Based Questions)

Time Allowed :3 Hours	Maximum Marks :70	Total Questions :34
-----------------------	-------------------	---------------------

General Instructions

Read the following instructions very carefully and strictly follow them:

- (i) This question-paper consists of 35 questions, which are divided into five Sections : A, B, C, D, & E :

Section–A consists of Question Nos. 1 to 18 objective type questions of 1 mark each. Answer these questions as per instructions.

Section–B consists of Question Nos. 19 to 25 very short answer type questions of 2 marks each.

Section–C consists of Question Nos. 26 to 30 short answer type questions of 3 marks each.

Section–D consists of Question Nos. 31 to 33 long answer type questions of 5 marks each.

Section–E consists of Question Nos. 34 & 35 case study based questions of 4 marks each.

- (ii) **All questions are compulsory.**

- (iii) There is no overall choice. However, an internal choice has been provided in some questions of Section – B, C, D and E. You have to attempt **only one** of the given choice in such questions.

- (iv) Use of Calculators is **not permitted**.

- (v) You may use the following values of physical constants whenever necessary :

$$c = 3 \times 10^8 \text{ m/s} \quad \mu_0 = 4\pi \times 10^{-7} \text{ Tm A}^{-1}$$

$$h = 6.63 \times 10^{-34} \text{ Js} \quad \frac{1}{4\pi\epsilon_0} = 9 \times 10^9 \text{ Nm}^2\text{C}^{-2}$$

$$e = 1.6 \times 10^{-19} \text{ C} \quad m_e = 9.1 \times 10^{-31} \text{ kg}$$

1. State Gauss's Theorem and use it to find the electric field due to an infinitely long charged wire or a thin spherical shell.

2. Derive the expression for Electric Field Intensity on the axial and equatorial line of a dipole.

3. Derive the expression for the capacitance of a parallel plate capacitor (with and without dielectric slab).

4. Derive the condition for a balanced Wheatstone Bridge.

5. Define Drift Velocity and establish its relation with electric current.

6. Explain the principle, construction, and derive the current sensitivity of a moving coil galvanometer.

7. Explain the principle and working of an AC Generator or a Transformer (including energy losses).

8. Derive the Lens Maker's Formula for a thin convex lens.

9. State Bohr's postulates and derive the expression for the radius of the n^{th} orbit.
