

Haryana Board Class 12 Physics Question Paper(Memory Based)

Time Allowed :3 Hour	Maximum Marks :60	Total Questions :24
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General Instructions

Read the following instructions very carefully and strictly follow them:

- Answers to this Paper must be written on the paper provided separately.
- You will not be allowed to write during the first 15 minutes
- This time is to be spent in reading the question paper.
- The time given at the head of this Paper is the time allowed for writing the answers,
- The paper has four Sections.
- Section A is compulsory - All questions in Section A must be answered.
- You must attempt one question from each of the Sections B, C and D and one other question from any Section of your choice.

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.
