

## CBSE Class 12 Physics Board Paper 2025 (Solved) - Part 1

### *Physics - General Syllabus*

#### 1. Overview and Core Theoretical Principles:

This study document contains essential concepts, derivations, formulas, and real-world examples.

Students are advised to review the definitions and practice the sample problems provided below.

#### 2. Key Formulae & Laws:

- Fundamental Law:  $E = mc^2$  / Ohm's Law:  $V = I * R$  / Newton's Second Law:  $F = m * a$
- Conservation Law: Total energy and momentum in an isolated system remains constant.
- Integration / Differentiation:  $d/dx(e^x) = e^x$  ;  $\text{Integral}(1/x \, dx) = \ln|x| + C$

#### 3. Sample Solved Question:

Problem: Calculate the net electrostatic force acting on a point charge in a uniform electric field.

Solution: By applying Coulomb's Law and vector superposition,  $F_{\text{net}} = q * E_{\text{net}} = (1.6e-19 \, \text{C}) * (500 \, \text{N/C})$ .

Final Result: Force =  $8.0 \times 10^{-17} \, \text{N}$  along the field direction.

#### 4. Examination Strategy & Tips:

- Always write step-by-step units alongside numerical calculations.
- Draw clean, labeled diagrams to earn maximum marks in subjective sections.
- Re-evaluate boundary conditions and verify significant figures before final submission.

## CBSE Class 12 Physics Board Paper 2025 (Solved) - Part 2

### *Physics - General Syllabus*

#### 1. Overview and Core Theoretical Principles:

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#### 2. Key Formulae & Laws:

- Fundamental Law:  $E = mc^2$  / Ohm's Law:  $V = I * R$  / Newton's Second Law:  $F = m * a$
- Conservation Law: Total energy and momentum in an isolated system remains constant.
- Integration / Differentiation:  $d/dx(e^x) = e^x$  ;  $\text{Integral}(1/x \, dx) = \ln|x| + C$

#### 3. Sample Solved Question:

Problem: Calculate the net electrostatic force acting on a point charge in a uniform electric field.

Solution: By applying Coulomb's Law and vector superposition,  $F_{\text{net}} = q * E_{\text{net}} = (1.6e-19 \, \text{C}) * (500 \, \text{N/C})$ .

Final Result: Force =  $8.0 \times 10^{-17} \, \text{N}$  along the field direction.

#### 4. Examination Strategy & Tips:

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- Draw clean, labeled diagrams to earn maximum marks in subjective sections.
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## CBSE Class 12 Physics Board Paper 2025 (Solved) - Part 3

### *Physics - General Syllabus*

#### 1. Overview and Core Theoretical Principles:

This study document contains essential concepts, derivations, formulas, and real-world examples. Students are advised to review the definitions and practice the sample problems provided below.

#### 2. Key Formulae & Laws:

- Fundamental Law:  $E = mc^2$  / Ohm's Law:  $V = I * R$  / Newton's Second Law:  $F = m * a$
- Conservation Law: Total energy and momentum in an isolated system remains constant.
- Integration / Differentiation:  $d/dx(e^x) = e^x$  ;  $\text{Integral}(1/x \, dx) = \ln|x| + C$

#### 3. Sample Solved Question:

Problem: Calculate the net electrostatic force acting on a point charge in a uniform electric field.

Solution: By applying Coulomb's Law and vector superposition,  $F_{\text{net}} = q * E_{\text{net}} = (1.6e-19 \, \text{C}) * (500 \, \text{N/C})$ .

Final Result: Force =  $8.0 \times 10^{-17} \, \text{N}$  along the field direction.

#### 4. Examination Strategy & Tips:

- Always write step-by-step units alongside numerical calculations.
- Draw clean, labeled diagrams to earn maximum marks in subjective sections.
- Re-evaluate boundary conditions and verify significant figures before final submission.

## CBSE Class 12 Physics Board Paper 2025 (Solved) - Part 4

### *Physics - General Syllabus*

#### 1. Overview and Core Theoretical Principles:

This study document contains essential concepts, derivations, formulas, and real-world examples. Students are advised to review the definitions and practice the sample problems provided below.

#### 2. Key Formulae & Laws:

- Fundamental Law:  $E = mc^2$  / Ohm's Law:  $V = I * R$  / Newton's Second Law:  $F = m * a$
- Conservation Law: Total energy and momentum in an isolated system remains constant.
- Integration / Differentiation:  $d/dx(e^x) = e^x$  ;  $\text{Integral}(1/x \, dx) = \ln|x| + C$

#### 3. Sample Solved Question:

Problem: Calculate the net electrostatic force acting on a point charge in a uniform electric field.

Solution: By applying Coulomb's Law and vector superposition,  $F_{\text{net}} = q * E_{\text{net}} = (1.6 \times 10^{-19} \text{ C}) * (500 \text{ N/C})$ .

Final Result: Force =  $8.0 \times 10^{-17} \text{ N}$  along the field direction.

#### 4. Examination Strategy & Tips:

- Always write step-by-step units alongside numerical calculations.
- Draw clean, labeled diagrams to earn maximum marks in subjective sections.
- Re-evaluate boundary conditions and verify significant figures before final submission.