CBSE Sample Papers 2025 (With Solutions)

Class 10 – Physics

JANUARY 12, 2026

MATHANGLES
BAMRAULI

CBSE Sample Paper 2025
Class 10 – Physics

(With Detailed Solutions)

EASY LEVEL

Time: 3 Hours | Maximum Marks: 25

General Instructions

1. All questions are compulsory.
2. The question paper consists of Sections A, B, C and D.
3. Use of calculator is not permitted.
4. Draw neat diagrams wherever required.

SECTION – A (1 × 5 = 5 Marks)

Attempt all questions

Q1. What is the SI unit of electric current?
Q2. What is meant by electric circuit?
Q3. Name a device used to measure electric current.
Q4. What is resistance?
Q5. Write the formula of electric power.

SECTION – B (2 × 5 = 10 Marks)

Q6. Define electric current. Write its formula.
Q7. State Ohm's law.
Q8. Write two uses of electricity.
Q9. What is an electric fuse?
Q10. Define electric energy.

SECTION – C (3 × 3 = 9 Marks)

Q11. Draw a neat diagram of an electric circuit and label its parts.
Q12. Explain the relationship between current and voltage.
Q13. Write three precautions while using electricity.

SECTION – D (1 × 1 = 1 Mark)

Q14. A bulb is connected to a battery. What form of energy is produced?

SOLUTIONS

Section A

Ans 1. Ampere

Ans 2. A closed path through which electric current flows is called an electric circuit.

Ans 3. Ammeter

Ans 4. Resistance is the property of a conductor that opposes the flow of current.

Ans 5.

P=VIP = VIP=VI

Section B

Ans 6.

Electric current is the rate of flow of electric charge.

Q=It, where I is current and t is time and Q is charge.

Ans 7.

Ohm's law states that at constant temperature, the current flowing through a conductor is directly proportional to the voltage applied across it.

V=IRV = IRV=IR

Ans 8.

Electricity is used for lighting and running electrical appliances.

Ans 9.

An electric fuse is a safety device used to protect circuits from excess current.

Ans 10.

Electric energy is the energy consumed by electrical devices.

Section C

Ans 11.

(Draw a simple circuit showing battery, switch, bulb and wires.)

Ans 12.

As voltage increases, current also increases.

This is explained by Ohm's law.

Ans 13.

1. Do not touch switches with wet hands.
2. Do not overload sockets.
3. Use proper fuses.

Section D

Ans 14.

Electrical energy is converted into light energy.

Prepared by: Mathangles – Smart Learning Partner

Also read:

90-days-study-plan-for-board-exam-2026

https://mathangles.com/90-days-study-plan-for-board-exam-2026/

Class 12 Physics Important Formula Sheet (Free PDF)

https://mathangles.com/class-12-physics-important-formula-sheet

• Important Numerical Questions

https://mathangles.com/class-12-physics-important-numerical-questions

Available on Mathangles.com

Thanks for visit and download also join telegram for fast update : https://t.me/mathanglesbrand

CBSE Sample Paper 2025
Class 10 – Physics

(With Detailed Solutions)

Medium LEVEL

Time: 3 Hours | Maximum Marks: 25

General Instructions

1. All questions are compulsory.
2. The question paper consists of Sections A, B, C and D.
3. Use of calculator is not permitted.
4. Draw neat diagrams wherever required.

SECTION – A (1 × 5 = 5)

1. What is the SI unit of electric resistance?
2. Define electric current.
3. What is the unit of electric power?
4. What is an electric fuse?
5. Write the formula for electric energy.

SECTION – B (2 × 5 = 10)

6. State Ohm's law.
7. Write two differences between AC and DC.
8. A bulb is connected to a battery. Write two energy changes.
9. Define electric potential difference.
10. Write two uses of electricity.

SECTION – C (3 × 3 = 9)

11. Find the current flowing through a resistor of resistance 10 Ω when a potential difference of 20 V is applied.
12. Calculate the electric power used by a device of resistance 50 Ω when connected to a 100 V source.
13. An electric heater is rated 1000 W. How much energy will it consume in 1 hour?

SECTION – D (1 × 1 = 1)

14. Name the device used to measure electric current.

SOLUTIONS

Section A

1. Ohm (Ω)

2. Flow of electric charge per second
3. Watt
4. A safety device used to protect circuits
5.

$E = P \times t$

Section B

6. Ohm's law:
   At constant temperature, current is directly proportional to voltage.

$V = IR$

7.

AC changes direction, DC does not.

AC is used in homes, DC in batteries.

8.

Electrical energy → Light energy

Electrical energy → Heat energy

9.

Work done to move unit charge.

10.

Used in lighting and machines.

Section C (Numericals)

Q11

Given:

$R = 10\ \Omega$

$V = 20\ V$

$I = \frac{V}{R} = \frac{20}{10} = 2\ A$

Q12

$R = 50\ \Omega$

$V = 100\ V$

$P = \frac{V^2}{R} = \frac{100^2}{50} = 200\ W$

Q13

$P = 1000\ W$

$t = 1\ hour$

$E = P \times t = 1000 \times 1 = 1000 \text{ Wh} = 1 \text{ kWh}$E = P × t = 1000 × 1 = 1000 Wh = 1 kWhE=P×t=1000×1=1000Wh=1kWh

Section D

14. Ammeter

Prepared by: Mathangles – Smart Learning Partner