Set -A

Silver Grove School
Annual Examination (2025–2026)
Class 8 – Physics
Maximum Marks: 40
Time Allowed: Two Hours
Instructions
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.
Section A is compulsory.
Question Number 9 is compulsory.
Attempt any other three questions from Section B.
The intended marks for questions or parts of questions are given in brackets [ ].
SECTION A
(Attempt all questions from this Section)
Question 1: Multiple Choice Questions
(Do not copy the question. Write the correct answer only.)
[15]
The electricity meter measures
(a) electric current
(b) electric potential
(c) electric resistance
(d) energy used
The SI unit of resistance is
(a) ampere
(b) volt
(c) ohm
(d) coulomb
Which device is used to measure electric current in a circuit?
(a) Ammeter
(b) Voltmeter
(c) Rheostat
(d) Potentiometer
Echo is produced due to
(a) diffraction of sound
(b) absorption of sound
(c) reflection of sound
(d) refraction of sound
The loudness of sound mainly depends on its
(a) frequency
(b) wavelength
(c) speed

(d) amplitude
If a current of 2 A flows through a resistance of 10 Ω, the potential difference is
(a) 5 V
(b) 20 V
(c) 10 V
(d) 40 V
In SONAR technology, the waves used are
(a) audible waves
(b) infrasonic waves
(c) ultrasonic waves
(d) radio waves
When live and neutral wires come in contact, it causes
(a) open circuit
(b) short circuit
(c) overload
(d) earthing
Increasing the loudness of a sound means increasing its
(a) wavelength
(b) velocity
(c) amplitude
(d) frequency
Twinkling of stars occurs due to
(a) reflection
(b) interference
(c) refraction
(d) diffraction
Sound waves are
(a) transverse waves
(b) electromagnetic waves
(c) longitudinal waves
(d) light waves
The old colour convention for earth wire is
(a) black
(b) green
(c) red
(d) yellow
The unit of frequency is
(a) second
(b) hertz
(c) joule
(d) watt
When sound travels from air to water, which remains constant?
(a) speed
(b) wavelength

(c) frequency
(d) amplitude
Assertion: Infrared radiations travel long distances through fog.
Reason: Infrared radiations undergo minimum scattering in atmosphere.
(a) Both assertion and reason are true
(b) Both are false
(c) Assertion true, reason false
(d) Assertion false, reason true
Question 2: Fill in the blanks
[5]
(a) A fuse melts when excess current flows.
(b) The pitch of sound depends on its frequency.
(c) The unit of electric current is ampere.
(d) Sound cannot travel in a vacuum.
(e) The frequency of vibration of an air column depends on its length.
SECTION B
Question 3
(i) A current of 0.5 A flows through a conductor for 10 minutes.
Calculate the total electric charge flowing through the circuit. [3]
(ii) Define electric potential difference. State its SI unit. [2]
Question 4
(i) Calculate the wavelength of a sound wave having frequency 400 Hz.
Speed of sound = 320 m/s. [2]
(ii) A sound wave travels a distance of 680 m in 2 seconds.
Find its speed and state whether it is audible to humans. [3]
Question 5
(a) A large drum produces louder sound than a small drum. Explain. [2]
(b) State and explain any three characteristics of sound. [3]
Question 6
(i) List three factors affecting loudness of sound. [3]
(ii) Differentiate between longitudinal waves and transverse waves (any two points). [2]
Question 7
(i) Differentiate between static electricity and current electricity. [2]
(ii) An electric meter shows 150 units at the beginning of the month and
290 units at the end. If the rate is ₹2.50 per unit, calculate the total bill. [3]
Question 8
(i) Why is a monotone speech boring and ineffective? [2]
(ii) Why is earthing necessary in electrical appliances? Explain any three reasons. [3]
Question 9 (CSBQ – Compulsory)
[5]
Read the passage and answer the questions:
Electric circuits in homes are generally connected in parallel. This ensures that each appliance receives the same voltage and works independently. The domestic supply voltage is 220 V. The switch is always connected in the live wire to ensure safety.

(i) The domestic supply voltage is
(a) 110 V
(b) 220 V
(c) 440 V
(d) 132 kV
(ii) Which wire carries current to the appliance?
(a) earth wire
(b) neutral wire
(c) live wire
(d) fuse wire
(iii) Parallel circuits are preferred because
(i) appliances get same voltage
(ii) appliances get same current
(iii) appliances work independently
(iv) switches depend on each other
Correct option is:
(a) (i) only
(b) (i) and (iii)
(c) (ii) and (iv)
(d) all of the above
(iv) The earth wire is mainly used to
(a) complete circuit
(b) increase current
(c) prevent electric shock
(d) supply voltage
(v) When a switch is OFF, it disconnects the
(a) neutral wire
(b) live wire
(c) earth wire
(d) both wires