



St. Mary's Convent Inter College, Prayagraj
First Unit Assessment -2024-25

Time :1hr.

Class- 9
Physics

M.M. : 30

Name :Roll No. Date :

Attempt all questions.

Q-1. Choose the correct option:

[5]

i) 1 Å is equal to:

- a) $10^4 \mu\text{m}$ b) 0.1nm c) 10^{-10}cm d) 10^{-8}m

ii) A source produces 40 waves in 0.4s. The frequency of the wave is:

- a) 10 Hz b) 100 Hz c) 0.1 Hz d) none

iii) The correct relation for a simple pendulum is:

- a) $T \propto L$ b) $T \propto L^2$ c) $T^2 \propto L$ d) none

iv) Sound propagates in the form of:

- a) transverse wave b) longitudinal wave c) both d) none

v) **Assertion:** The temperature of a body may rise whenever heat is supplied to the body.

Reason: Temperature is the measure of the degree of hotness of a body.

a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.

b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

c) Assertion is true and Reason is false.

d) Assertion is false and Reason is true.



- Q-2.** a) Define anomalous expansion of water. [1]
b) A sound wave of frequency 500 Hz has a wavelength 0.66m. Find the velocity of the wave. [2]
c) Two simple pendulums have lengths 1 m and 9 m. Find the ratio of their time periods. [2]
- Q-3.** a) Write three differences between heat and temperature. [3]
b) Define the following: [3]
 1. Pitch of a screw gauge
 2. Vernier constant
 3. Second's pendulum
c) Write two advantages and two disadvantages of hydroelectricity. [4]
- Q-4.** a) Write three very big units of length. Also write their values. [3]
b) Write three green house gases. [3]
c) Write four factors which affect the speed of sound in a medium. [4]