

**GREENLAWN'S SCHOOL, WORLI**  
**Final Examination 2025-26**  
**PHYSICS**

STD: VIII  
Date: 13/02/2026

Marks: 80  
Time: 2 hrs

**Question 1** Choose the correct answers to the questions from the given options.  
(Do not copy the question, write the correct answers only.)

**[15]**

- i. The deviation in direction of a ray of light when it passes from one transparent medium to another having varying density, is called \_\_\_\_\_.  
a) Reflection      b) Refraction      c) Dispersion      d) none
- ii. The appearance of rainbow in sky is due to \_\_\_\_\_ of light.  
a) refraction      b) reflection      c) dispersion      d) none of these
- iii. The point at which principal axis touches the mirror is called \_\_\_\_\_.  
a) Pole      b) centre of curvature      c) focus      d) none of these
- iv. The point where parallel beam of light meet after reflection \_\_\_\_\_.  
a) focus      b) centre of curvature      c) pole      d) none of these
- v. Kinetic energy of the molecule increases if the substance is \_\_\_\_\_.  
a) cooled      b) heated      c) no change      d) none of these
- vi. Expansion in liquids is \_\_\_\_\_ than solids  
a) less      b) more      c) equal      d) none
- vii. The process in which liquids change into gases at or above a fixed temperature is called \_\_\_\_\_.  
a) Evaporation      b) Boiling      c) Condensation      d) non
- viii. Two rods A and B of the same metal, same length, but one solid and other hollow, are heated to the same rise in temperature Then:  
a) the solid rod A expands more than the hollow rod B  
b) the hollow rod B expands more than the solid rod A  
c) the hollow rod B contracts, but the solid rod A expands  
d) both the rods A and B expand the same
- ix. **Assertion (A):** A humid environment slows the rate of evaporation.  
**Reason (R):** In humid environment, vapour molecules do not find the space to escape.  
a) Both A and R are true, and R is the correct explanation of A  
b) Both A and R are true, and R is not the correct explanation of A  
c) Assertion is true but reason is false  
d) Assertion is false but reason is true
- x. One kilowatt is equal to:  
a) 100 watt      b) 1000 watt      c) 10 watt      d) none of these

- xi. **Assertion (A):** To make a shrill sound in a flute, holes are opened.  
**Reason (R):** The holes are opened to increase the length of the vibrating air column.  
 a) Both A and R are true, and R is the correct explanation of A  
 b) Both A and R are true and R is not the correct explanation of A  
 c) Assertion is true but reason is false  
 d) Assertion is false but reason is true
- xii. When switch of an electrical appliance is put off, it disconnects:  
 a) live wire    b) neutral wire    c) earth wire    d) live and the neutral wires
- xiii. If out of the two lighted bulbs in a room, one bulb suddenly fuses, then:  
 a) the other bulb will glow more    b) the other bulb will glow less  
 c) the other bulb will also fuse    d) the other bulb will remain lighted and unaffected.
- xiv. The factor responsible for charging a conductor is:  
 a) transfer of protons    b) transfer of neutrons  
 c) transfer of electrons    d) transfer of both protons and electrons
- xv. A glass rod rubbed with silk is touched with the disc of a negatively charged gold leaf electroscope. The divergence of leaves will:  
 a) Decrease    b) increase  
 c) remain unchanged    d) first decreases and then increases
- xvi. **Assertion (A):** A fuse is used in an electrical appliance to safeguard from electric shocks.  
**Reason (R):** A fuse melts and breaks the circuit when excessive current flows through it.  
 a) Both A and R are true, and R is the correct explanation of A  
 b) Both A and R are true, and R is not the correct explanation of A  
 c) Assertion is true, but reason is false    d) Assertion is false, but reason is true

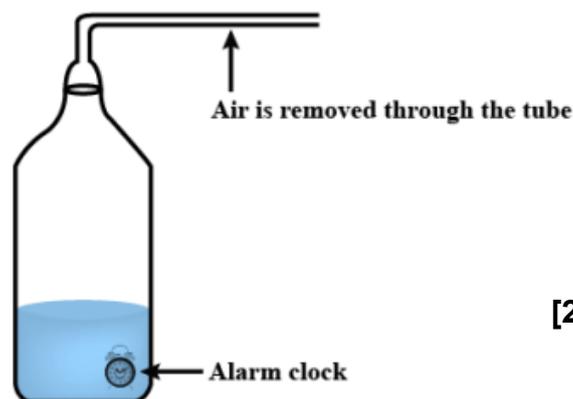
## Question 2

a. Fill in the blanks.

[6]

1. A longer string will produce a sound of a \_\_\_\_\_ pitch.
2. An electric meter measures the amount of electricity consumed in units of \_\_\_\_\_
3. When a positively charged body is brought near a conductor, it induces a \_\_\_\_\_ charge on the near end of the conductor.
4. A tuning fork produces sound of \_\_\_\_\_ frequency.
5. The time period of a wave is 2 s. Its frequency is \_\_\_\_\_
6. One kilowatt hour is equal to \_\_\_\_\_ joule.

b. When air has been removed completely from a vessel, it is said that there is a vacuum in the vessel. What will be the quality of the alarm clock sound in the above experiment? Also mention the reason for your answer.



[2]

- c. Mention the reason of two different diagrams given below [2]



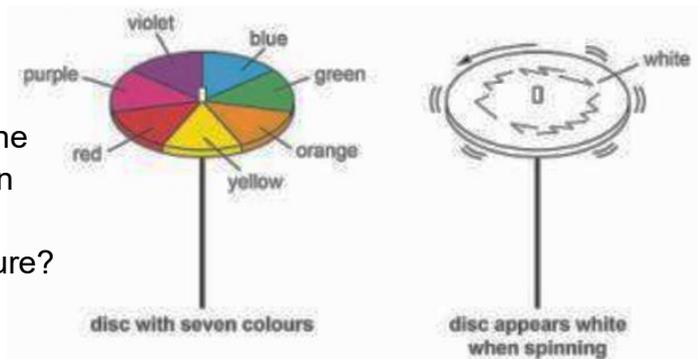
Balloons attracted



Balloons repel

### Question 3

- a. Samaira has a multi-coloured disc. She finds that the disc appears white when she spins it rapidly. What can be concluded from the picture?



- b. Touch the bell when it stops producing sound. Can you feel the vibration? What do you understand by this? [2]
- c. Define current electricity and give its SI unit? [2]
- d. Define Potential difference and give its Si unit. [2]
- e. What is an electric fuse? State its purpose in the household electrical circuit. [2]
- f. In the household electric circuit, if one bulb is fused in a room, the other bulbs keep glowing. Explain the reason. [2]
- g. State the colour coding of the three wires in a cable used for wiring in a household electrical circuit. [3]

### Question 4

- a. Can we use copper wire as a fuse wire? Give reason. [2]
- b. What is a longitudinal wave? [2]
- c. How does the wave pattern of a loud note differ from a soft note? Draw a diagram. [2]
- d. Draw a ray diagram to show the formation of the image of an object placed on the principal axis of a convex mirror. State the position, size and nature of the image. What happens to the image as the object is moved away from the mirror? [4]

### Question 5

- a. An empty glass bottle is fitted with a narrow tube at its mouth. The open end of the tube is kept in a beaker containing water. When the bottle is heated, bubbles of air are seen escaping into water. Explain the reason. [2]
- b. Name the kind of mirror used to obtain:  
(i) a real and enlarged image,  
(ii) a virtual and enlarged image,  
(iii) a real and diminished image, and  
(iv) a virtual and diminished image. [2]
- c. State and explain three factors on which depend the linear expansion of a metal rod on heating. [3]
- d. In a premise 5 bulbs each of 100 W, 2 fans each of 60 W, 2 A.Cs each of 1.5 kW are used for 5 h per day. Find:  
(i) total power consumed per day,  
(ii) total electrical energy consumed in 30 days,  
(iii) the cost of electricity at the rate of Rs 6.25 per unit. [3]

### Question 6

- a. Hetvi was given an electroscope with its gold leaves diverged. What do the diverged leaves indicate? She was also given a rod which she did not know was charged or not. Hetvi touched the rod to the cap of the electroscope to find that the divergence of the gold leaves decreased. What should she infer about the charge status of the rod? [2]
- b. A ray of light incident on a rectangular glass slab immersed in any medium emerges parallel to itself. Draw a labelled ray diagram to justify the statement. [2]
- c. A comb rubbed on dry hair attracts small bits of paper. Give reason [2]
- d. An ebonite rod rubbed with fur becomes negatively charged. Give reason [2]
- e. What is a lightning conductor? How does it work? [2]

### Question 7

- a. What are the do's and don'ts during a thunderstorm when you are outside the house? [2]
- b. There is a coloured stone at the bottom of a swimming pool. Harshad is trying to hit it with an arrow. However, each time he misses the target by a narrow margin. Can you explain to Harshad why he misses the target and how can he hit it with more accuracy? [2]
- c. Give three observations in our daily life where the principle of evaporation produces cooling. [3]
- d. Draw a ray diagram to show the formation of the image of an object placed at the centre of curvature of a concave mirror. State the position, size and nature of the image. [3]

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