

SUMMATIVE ASSESSMENT - 1

GENERAL SCIENCE , Paper – I

(Physical Sciences)

(English Version)

Time: 3 Hours

Parts A and B

Maximum Marks : 50

Instructions :

1. The Question paper contains 4 printed pages in Part-A and also in Part-B.
2. ½ hour is allotted for reading the question paper.
3. Answer the questions under Part-A on a separate answer booklet.
4. Write the answers to the questions under Part-B on the question paper itself and attach it to the answer booklet of Part-A.

Time : 2 hours

PART-A

Max. Marks : 35

Section - I

5 x 2 = 10

Note :

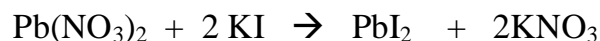
1. Answer any five questions choosing at least two from each group.
2. Each question carries two marks.

Group -A

1. How much energy transferred when 1 gram of boiling water at 100°C turns to water at 0°C ?
2. The focal length of a convex mirror is 10cm. An object is placed before the convex mirror at 20 cm distance. Then
 - (i) where should be the image collected?
 - (ii) What are the properties of the image?
3. Water is kept in a glass cube. Can it shine as diamond? Explain.
4. What is the focal length of a double convex lens kept in air with two spherical surfaces of radii $R_1 = 30\text{cm}$ and $R_2 = 60\text{cm}$.?
(Take the refractive index of the lens as 1.5.)

Group -B

5. Observe the following chemical equation. And answer the questions.



- (i) What are the reactants ?
- (ii) What are the products ?
- (iii) Which type of chemical reaction it is ?
- (iv) What is the colour of PbI_2 ?

6. Why silver turns into black after a long time? Give the reason.

7. Classify the following substances as per their P^{H} values.

Tamarind juice	Lemon juice	Soap water	Distilled water
Washing soda	Baking soda	Soda water	Tea

$\text{P}^{\text{H}} < 7$	$\text{P}^{\text{H}} = 7$	$\text{P}^{\text{H}} > 7$

8. Identify the acids and bases from which the following salts are obtained. Write the chemical equations.



Section - II

4 x 1 = 4

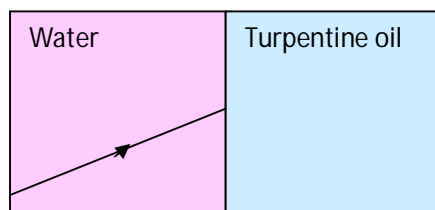
Note :

1. Answer any four questions from the following.
2. Each question carries one mark.

9. Ramesh is doing experiment with a mirror. If an erect image with height 0.75 times to that of object's size is formed. Can you guess the mirror ?

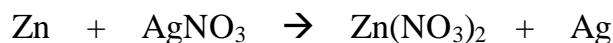
10. The absolute refractive index of water is $\frac{4}{3}$. What is the critical angle ?

11. Complete the refracted ray in the following ray diagram.



12. Write any two uses of Plaster of Paris?

13. Balance the following chemical equation.



14. How can an acid rain effect the aquatic life?

Section - III

4 x 4 = 16

Note :

1. Answer any four questions choosing at least two from each group.
2. Each question carries four marks.

Group -A

15. Give examples for the following processes.

- | | |
|------------------------|------------------|
| (i) Condensation | (ii) Evaporation |
| (iii) Transfer of heat | (iv) Sublimation |

16. Read the following conversation.

Teacher : “If you want to collect virtual image, which mirror do you select?”.

Bharathi: “convex mirror”

Sowmya: “concave mirror”

Firoz : “plane mirror”

What do you think ? Who is correct ? Explain.

17. Write the possible situations for the following.

- (i) incident angle > refracted angle
- (ii) incident angle < refracted angle
- (iii) incident angle = refracted angle
- (iv) refracted angle = 90°

18. How can you determine the focal length of a convex lens experimentally.

Draw a rough diagram.

Group -B

19. For the questions asked by the teacher Jashuva replied the correct answers as

- | | |
|--------------------------|-----------------------------|
| (i) Chemical combination | (ii) Oxidation |
| (iii) Carbon dioxide | (iv) liberates Hydrogen gas |

Can you guess the questions?

20. A light yellow colour substance (some quantity) on a watch glass is put in the sun light. It changes into gray colour powder.

- (a) What is the light yellow colour substance?
- (b) What is the gray colour substance?
- (c) Which type of chemical reaction it is?
- (d) Write the chemical equation for the reaction.

21. Identify whether the following statements are true or false. If false, correct them.

- (i) Common name of NaHCO_3 is washing soda
- (ii) Baking soda is used as antibiotic
- (iii) If $\text{p}^{\text{H}}=14$, the substance is a strong base.
- (iv) Water should not be added to acid.

22. Identify these gases.

- (i) A gas gives pop sound when a burning match stick kept near to it.
- (ii) A gas that converts lime water into milky white colour.
- (iii) A gas helps in controlling fire accidents.
- (iv) A gas in which helps to burn substances.

Section - IV

1 x 5 = 5

Note :

- 1. Answer any one question from the following.
- 2. Each question carries five marks.

23. Draw a neat diagram to show the activity of water of crystallization.

Label the parts.

24. Identify the mistakes in the following diagram. Correct them. And label the parts.

