

FORMATIVE ASSESSMENT-2
PHYSICAL SCIENCE-4th & 5th Chapters
10th Class- CCE Model

Time: 45 min.

2016-17

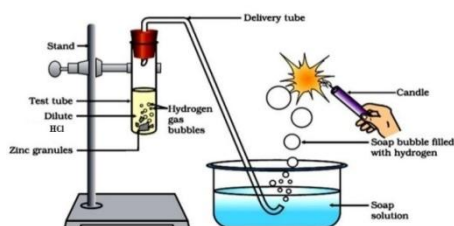
Max. Marks: 20.

Name : _____
Sec : _____ Roll No : _____

I. Answer the following Long answer type questions.

4M X 2 = 8

1. Observe the following figure and answer the questions.



- What happens when Zinc powder is used instead of Zinc granules?
 - Which gas is liberated in this activity?
 - How can you test the evolved gas?
 - What conclusion you got by this activity?
2. Your friend gave a glass slab to you and asks to find out the refractive index of the material of the glass slab. How can you find it? Explain with an activity.

II. Answer the following Short answer type questions.

2M X 2 = 4

- While diluting an acid, why is it recommended that the acid should be added to water and not water to the acid?
- You are given kerosene, turpentine and water. In which of these does the light travel fastest? Which is more optically denser? Use the information given in Table?

| Solution | Refractive index |
|------------|------------------|
| Kerosene | 1.44 |
| Turpentine | 1.47 |
| Water | 1.33 |

III. Answer the following Very Short answer type questions.

1M X 2 = 2

- Why does dry HCl gas not change the colour of the dry litmus paper?
- Can you take a photo of a mirage?

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IV. Choose the correct answer of the following.
1M X 6 = 6

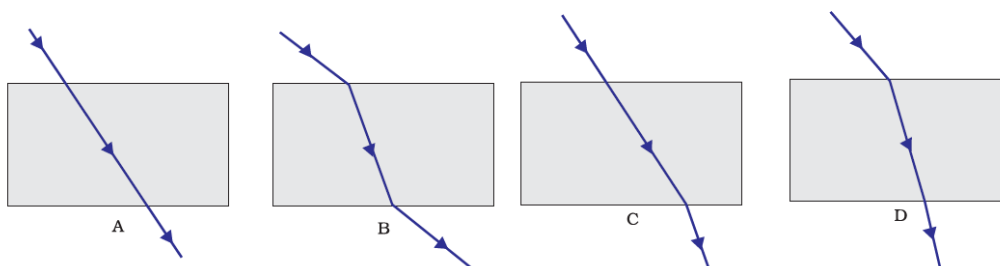
7. What happens when a solution of an acid is mixed with a solution of a base in a test tube? ()
- (i) The temperature of the solution increases.
(ii) Neutralization takes place.
(iii) Salt formation takes place.
(iv) Water formation takes place.
- (a) (i) and (iii) (b) (ii) and (iii) (c) (ii), (iii) and (iv) (d) (i), (ii), (iii) and (iv)
8. To protect tooth decay we are advised to brush our teeth regularly. The nature of the tooth paste commonly used is ()
- (a) acidic (b) neutral (c) basic (d) corrosive
9. Match the Chemical substances given in Column I with their appropriate formula given in Column II. ()

| Column I | Column II |
|---------------------|--|
| A. Bleaching Powder | 1. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ |
| B. Baking Soda | 2. NaCl |
| C. Washing soda | 3. CaOCl_2 |
| D. Sodium Chloride | 4. NaHCO_3 |

Codes

- | | | | | | | | | | |
|-----|---|---|---|---|-----|---|---|---|---|
| | A | B | C | D | | A | B | C | D |
| (a) | 2 | 1 | 4 | 3 | (b) | 3 | 2 | 4 | 1 |
| (c) | 3 | 4 | 1 | 2 | (d) | 2 | 4 | 1 | 3 |

10. The path of a ray of light coming from air passing through a rectangular glass slab traced by four students are shown as A, B, C and D in the figure. Which of them is correct? ()



- (a) A (b) B (c) C (d) D
11. Which statement of the following are correct in the mirage concept? ()

- (i) Mirage is an optical illusion.
(ii) We see a mirage as flowing water.
(iii) The formation of mirage due to the refractive index of a medium varies throughout the medium.
(iv) We can take a photograph of a mirage.

- (a) (i) and (iii) (b) (iii) and (iv) (c) (i), (ii) and (iii) (d) (i), (ii), (iii) and (iv)

12. Which is not the Snell's law? ()

- (a) $n_1 \sin i = n_2 \sin r$ (b) $v_1 \sin i = v_2 \sin r$ (c) $v_2 \sin i = v_1 \sin r$ (d) $\sin i / \sin r = \text{Constant}$
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