**SINDHI HIGH SCHOOL, HEBBAL**

**II PERIODIC TEST [2023-24]**

**Subject: SCIENCE**

**ANSWER - KEY**

**Class: VII Max. Marks: 50**

**Date: 20.12.2023**

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| --- | --- | --- |
| 1. | (a) The angle of incidence and reflection are equal. | 1 |
| 2. | (b) a convex mirror | 1 |
| 3. | (a)Plane mirror and convex mirror | 1 |
| 4. | (d) Curd, vinegar | 1 |
| 5. | (b) base and neutral | 1 |
| 6. | c) organic matter | 1 |
| 7. | b) Oxygen | 1 |
| 8. | a)  To trap dust particles. | 1 |
| 9. | a) Both A and R are true, and R is correct explanation of the assertion. | 1 |
| 10. | c) A is true, but R is false. | 1 |
| 11. | d) A is false, but R is true. | 1 |
| 12. | a) Both A and R are true, and R is correct explanation of the assertion. | 1 |
|  | **SECTION B** |  |
| 13. | REAL AND VIRTUAL IMAGE - Fun with science | Any 2  1m each |
| 14. | **No, it’s not a suitable choice because** the dentist cannot see properly. He should use **concave mirror** because concave mirror forms virtual, **erect (upright)** and **enlarged (magnified)** image when the object is placed very close to the mirror. | **½**  **½+½**  **½** |
| 15. | a) Lime water turns milky  b) Carbon dioxide  c) CO2 in inhaled air – 0.04% and in exhaled air – 4.4% | **½**  **½**  **½+½** |
| 16. | Breathing is the process of taking in air rich in oxygen and giving out air rich in carbon dioxide by the organism  The process of breakdown of food in the cell with the release of energy is called cellular respiration | **1**  **1** |
|  | **SECTION C** |  |
| 17. | These mirrors can be differentiated by bringing our face close to each mirror turn by turn. Since, a plane mirror will produce an image of the same size as our face while a concave mirror will produce a magnified image and our face will look much bigger and on other side, a convex mirror will produce a diminished image and our face will look much smaller. | **1**  **1**  **1** |
| 18. | a) because these are corrosive in nature and irritating, and harmful to skin.  b) because in solid states ions are not free to move.  c) The wastes of many factories contain acids. If they are allowed to flow into   the water bodies, the acids will kill fish and other organisms. | **1**  **1**  **1** |
| 19. | [A] Inhalation - Diaphragm contracts and flattens by moving down.  - Ribs move upward and outwards.  [B] Exhalation - Diaphragm relaxes and turns dome-shaped by moving up.  - Ribs move downwards and inwards. | **½+½**  **½**  **½+½**  **½** |
| 20. | (i) Spiracles are present on the sides of the insects’ body while stomata are present on the lower surface of leaves.  (ii) Spiracles are fewer in number as compared to stomata.  (iii) Spiracles lead to an extensive network of a tracheal system which is absent in the leaves. | **½+½**  **½+½**  **½+½** |
|  | **SECTION D** |  |
| 21. | i) A, H, I, M, O, T, U, V, W and X  ii) Distance between the mirror and Rahul’s image is 4m.  If the Rahul moves 1 m towards the mirror, then the distance between mirror and Rahul’s image will be (4 – 1) m = 3m  We know that in case of plane mirror image is at the same distance behind the mirror as the object is in front of it. Therefore,  Distance between Rahul and mirror = Distance between mirror and Rahul’s image  So, Distance between Rahul and his image = Distance between Rahul and mirror + Distance between mirror and Rahul’s image (i.e., 3 + 3 = 6 m)  iii) The image formed by a plane mirror is always virtual, erect, behind the mirror and of **the same size as the object.** The size of the image is independent of the size of the plane mirror (doesn’t matter). | **Any2**  **½+½**  **½**  **½**  **1**  **1**  **1** |
| 22. | i) The solution turns pink.  ii) The pink colour from the solution disappears.  iii) A neutralization reaction can be defined as a chemical reaction in which an ACID and a BASE react together to form a SALT and WATER as products. Some heat is always evolved (produced) in this reaction.  HCl + NaOH NaCl + H2O + ∆ [heat]  iv) a) green b) magenta (dark pink)  c) red d) yellow | **½**  **½**  **1**  **1**  **1**  **1** |
|  | **SECTION E** |  |
| 23. | i) a) acids are sour to taste whereas bases are bitter to taste.  b) Acids are soluble in water whereas all bases are not. Bases which are   soluble in water is called alkalis.  ii) a) citric acid b) Oxalic acid  iii) a) Ammonium hydroxide  b) Sodium hydroxide or potassium hydroxide | **½+½**  **½+½**  **½+½**  **½**  **½** |
| 24. | a) i) earthworm ii) frog  Discover more than 62 fish gills drawing super hot - xkldase.edu.vnb)  c) i) lactic acid and energy  ii) alcohol, carbon dioxide and energy | **½+½**  **½+½**  **1**  **1** |

**Class VII**

**Physics** – Light upto concave and convex mirror.

**Chemistry**- Acids, Bases and Salts.

**Biology** – Respiration in organisms.

