**SINDHI HIGH SCHOOL, BENGALURU**

**HALF YEARLY EXAMINATION [2023-24]**

**SUBJECT: SCIENCE ANSWERKEY**

**Class: VII**

**Date: 03-10-2023**

**Max marks: 80**

|  |  |  |
| --- | --- | --- |
| 1 | c) Na | 1 |
| 2. | d) Magnesium | 1 |
| 3 | a) atom | 1 |
| 4 | c) 1 | 1 |
| 5. | d) Both (b) and (c) are correct. | 1 |
| 6 | a) sodium hydrogen carbonate | 1 |
| 7 | (c) cooking a pot of rice | 1 |
| 8 | (b) starch | 1 |
| 9 | (c) small intestine | 1 |
| 10 | (b) starch into simple sugars | 1 |
| 11 | (c) excretory system | 1 |
| 12 | (c) under the fan | 1 |
| 13 | (b) not flow from iron ball to water or from water to iron ball | 1 |
| 14 | (d) A and C | 1 |
| 15 | (c) increases heavily | 1 |
| 16 | (a) heat | 1 |
| 17 | b) Both A and R are true but R is not the correct explanation of A | 1 |
| 18 | c) A true but R is false. | 1 |
| 19 | d) A is false but R is true. | 1 |
| 20 | c) A true but R is false. | 1 |
| 21 | i) MgO iv) H2O compoundii) He iii) Cl Element | ½ + ½  ½ + ½ |
| 22 |  | Drawing 1  any 2 labelling  ½ + ½ |
| 23 |  | (Any 2)  ½ + ½  ½ + ½ |
| 24 | i) Grass (any green plant)  ii) Mushroom  iii) Lichen  iv) Pitcher plant | ½  ½  ½  ½ |
| 25 | Steel spoon and divider will get hot on the other end as they are good conductors of heat.  Plastic scale and pencil do not get hot on the other end as they are poor/bad conductors of heat. | ½ + ½  ½ + ½ |
| 26 | \*Mucous protects the lining of stomach.  \*The hydrochloric acid kills bacteria that enter along with the food. | 1+1 |
| 27 | Solution: Given, A = 11 ; Z = 5  Since Z = p = e hence, p and e = 5  No. of neutrons(n) = A – Z  = 11 – 5 = 6.  Therefore, no of protons = no. of electrons = 5  and no. of neutrons = 6  The element ‘X’ is Boron. | Formula-½  p ½  e ½  n ½  [1] |
| 28 | a) solution to pale green and brown deposition on nail.  b) because of the formation of iron sulphate and copper.  c) Copper sulphate + Iron Iron sulphate + Copper | ½ + ½  ½ + ½  1 |
| 29 | a) A- Heart B- blood  b) Red  c) C- digested food; D- Oxygen  d) Carbon dioxide | ½x6 |
| 30 | Two separate sets of two cells each are shown below Draw lines to indicate  how you will connect their terminals with wires to make batteries of two  cells each a)  b) Electric fuse is a safety device which prevents electric fires and   damage to electrical appliances due to excessive flow of current. | 1+1  1 |
| 31 | **(a) conduction**  **(b) Radiation.**  **(c) Convection.** | 1  1  1 |
| 32 | The breeze blowing from the sea towards the land is called sea breeze.  The breeze blowing from the land towards the sea is called land breeze. | 1+1  ½  ½ |
| 33 |  | 3 |
| 34 | a)  i)Ca2+ OH1- ii) **Fe2+ S2-**       1. 2 2 2   Ca(OH)2 FeS    How can I make a sodium atom model? | Socraticb)    atomic no. 11  Electronic configuration = K2 L 8 M1 | 1½ + 1½  1  ½  ½ |
| 35 | a) A incisors B- Canine C- Molars  b) A – biting and cutting food.  B- piercing and tearing food  C – crushing and grinding food  c) If we do not clean our teeth after eating then any harmful bacteria may begin to live and grow on it. These bacteria breakdown sugar present in leftover food and release acid which damages the teeth. This is known as tooth decay. | 1½  1½  2 |
| 36 | Electric Current and Its Effects Class 7 Notes Science Chapter 14 9a)  \*Take a long piece of insulated wire and an iron nail.  \*Wind the wire tightly around the nail.  \*Connect to the free ends of the wire to the terminals of a cell through a switch.  \* Place some pins near the end of the nail and switch on the current.  \*The pins cling to the tip of the nail. The coil behaves like a magnet till the current flows through it.  b) The two factors on which the strength of the magnetic field of an   electromagnet depends.  \*By increasing the amount of current used in the coil.  \*By increasing the number of turns forming the coil. | 1  2  1  1 |
| 37 | a) When the paper is torn into pieces, it undergoes a physical change as only the size of the paper changes and no new substance is formed. Whereas when a paper is burned, a new substance ash is formed, hence it is a chemical change.  b) i) The process of depositing a thin layer of zinc metal on iron   objects.  ii) The process of obtaining a substance in its pure crystal form   from its solution. | 1+1  1  1 |
| 38 | a) Xylem and phloem.  b) \*Xylem transports water and minerals from roots to the   entire plant.  \*Phloem transports synthesized food from leaves to all   the parts of the plant.  c) Water reaches great heights in the trees because of **suction pull**   caused by **transpiration**. | ½+½  1  1  ½+½ |
| 39 | a) The degree of hotness or coldness of an object on some chosen scale is called its temperature.  b) i) 35o C to 42o C  ii) -10o C to 110o C  c) This is because the clinical thermometer has a kink which prevent the back flow of mercury into the thermometer bulb when the thermometer is removed from the patient’s mouth. | 1  1  1  1 |