

Chemistry

Time: 40 minute
Score : 20

Answer any 3 questions from 1 to 5. (1 Score each) (3x1=3)

1. Boiling point of water is (1)
2. Magnesium + Hydrochloric acid \rightarrow Magnesium chloride + Hydrogen + Heat Which type of reaction is this? (1)
(Exothermic reaction, Endothermic reaction, Photochemical reaction)
3. Changes that are permanent and new molecules formed are called (1)
4. Monomer of the polymer Rubber is (1)
5. Haven't you noticed the caption " Shake well before use" in certain medicine bottles. Which class does the substance in them belong to? (1)
(Solution, Colloid, Suspension)

Answer any 4 questions from 6 to 10. (2 Scores each) (4x2=8)

6. Complete the table. (2)

| Element | Symbol | The basis of naming |
|---------------|--------|---------------------|
| Germanium | Ge | _____ a _____ |
| _____ b _____ | Cu | Latin name |

7. Malleability and ductility are the properties of metals.
 - a) Which is the most malleable metal? (1)
 - b) Which is the most ductile metal? (1)
8. What are the changes that happen to the following properties of particles in a substance when heat is absorbed? (2)
 - (a) Energy of particles
 - (b) Attraction between particles
 - (c) Distance between particles
 - (d) Movement of particles
9. Following are the observations when a student added soap solution to two samples of water collected from two different sources.

| Sample | Observation |
|-------------------------------|------------------------|
| Water collected from source 1 | Lathers easily |
| Water collected from source 2 | Does not lather easily |

- a) Which one of these is hard water ? (1)
- b) Which salts are responsible for the hardness of water ? (1)
10. Thermoplastics and thermosetting plastics are two different types of plastics.
- a) Which one of these can be recycled ? (1)
- b) Give an example for thermosetting plastics (1)

Answer any 3 questions from 11 to 15 (3 Scores each) (3x3 = 9)

11. Match the table (3)

| Mixture/Occasion | Method of separation | Property used for separation |
|------------------------------------|-------------------------|---|
| Mixture of water and acetone | Centrifugation | Small difference in the boiling point of components |
| Mixture of petrol and kerosene | Distillation | Difference in the mass of components |
| To separate blood cells from blood | Fractional distillation | Large difference in the boiling point of components |

12. NaCl is the chemical formula of common salt
- (a) Which elements are represented by the symbols Na and Cl ? (1)
- (b) Find the total number of molecules and atoms in $5\text{H}_2\text{SO}_4$ (2)
13. Two cotton pieces are soaked in Silver bromide solution. One is kept in direct sunlight and the other wrapped in a black cloth.
- a) What do you observe ? (1)
- b) Which form of energy was responsible for this chemical change ? (1)
- c) What is the common name of this type of reaction ? (1)
14. Some solutions are given below.

Brass, Sugar solution, Mixture of alcohol and water, Soda water

- a) Which among these has solid solute and solid solvent ? (1)
- b) Which are the solute and solvent in the mixture of alcohol and water ? (1)
- c) Which among these has gaseous solute ? (1)
15. Iron is a metal that corrodes fastly.
- a) Write any two situations that favour corrosion of iron. (1)
- b) Copper nails are preferred to Iron nails in coastal areas. Why? (1)
- c) Write any one method to prevent the corrosion of Iron. (1)