

9. Translucent
10. Metals

III. Answer the following question in one sentence.

2x10=20

1. The mustard oil floats on water and forms a separate layer.
2. wax, plastic ball, wood, leaf, ice, thermocol, oil
3. stone, key, screw, iron nail, coin
4. Table and Chair
5. glass bowl and steel spoon.
6. paper, thermocol, thin plastic sheet
7. Gold, silver
8. Plastic or Metal
9. Wooden doors and steel plate
10. cups, plates, toys, buckets, baskets

IV. Answer the following questions in brief.

3x5=15

1. Materials are classified into different groups for the following reasons:
 - i. For the convenience of identifying and locating the different materials.
 - ii. To study their properties and identify common patterns among them.
2. Those substances or material, through which things can be seen are called transparent.
For example-water, glass etc.
The materials through which objects can be seen but not clearly are known as translucent. For example-oily patch on paper, butter paper.
3. Cover the glass of a torch with your palm at a dark place. Switch on the torch and observe from the other side of palm. We see that the light of torch passes through palm but not clearly. This experiment shows that our palm becomes translucent when a strong beam of light passes through it.
4. Proper grouping of objects helps shopkeeper in the following ways:
 - (i) He can locate the required object easily and quickly.
 - (ii) He can easily come to know what stocks are going to finish and he should purchase them for his customers.
5.
 - a) The one without any paint as it is transparent.
 - b) The window he painted black as it is opaque.
 - c) He will everything clearly but yellow in colour as it is translucent.

V. Answer the following questions

5x5=25

1. The following are some important properties of matter:
 - a) **Appearance:** Materials can be classified based on how they appear. The appearance of various materials varies.
 - b) **Lustre:** The lustre of a material can be used to classify it. Some shine brightly, while others are rather dull.
 - c) **Solubility in water:** Substances are classified as soluble or insoluble based on their solubility in water.
 - d) **Transparency:** Transparent materials allow almost all light to pass through. Light cannot pass through opaque materials. Translucent materials allow some light to pass through.

2. **Opaque material:** Opaque substances are those substances through which objects cannot be seen. Example: wood, stone.

Translucent material: Translucent substances are those substances through which objects can be seen but not clearly. Example: oiled paper, frosted glass.

Transparent material: Transparent substances are those substances through which objects can be seen clearly. Example: glass, clear water

3. While certain gases are insoluble in water, others are soluble. Water can dissolve oxygen gas. The oxygen dissolved in water is used for respiration by plants and animals that dwell in the water. Therefore, oxygen that has been dissolved in water is crucial for the survival of aquatic creatures and plants.

Water can dissolve carbon dioxide gas as well. For the process of photosynthesis, aquatic plants require the carbon dioxide gas that has been dissolved in the water.

4. When you press different materials with your hands, some of them may be hard to compress while others can be easily compressed. Take a metal key and try to scratch with it, the surface of a piece of wood, aluminium, a piece of stone, a nail, candle, chalk, any other material or object. You can easily scratch some materials, while some cannot be scratched so easily. Materials which can be compressed or scratched easily

are called “soft” while some other materials which are difficult to compress are called “hard”. For example, cotton or sponge is soft while iron is hard.

5. Collect small pieces of different materials – paper, cardboard, wood, copper wire, aluminium sheet, chalk. Separate the shiny materials into a group. Now, cut each material into two pieces and look at the freshly cut surface. Some of these materials appear shiny. Include these objects also in the group of shiny materials. Instead of cutting, you can rub the surface of material with sand paper to see if it has lustre. Materials that have such lustre are usually metals. Iron, copper, aluminium and gold are examples of metals. Therefore, we can differentiate the materials, according to the lustre.

XX