6 Materials Around Us

A. Multiple Choice Questions.

1. Which of the following is transparent?
   (a) Wooden screen ☐ (b) Ceramic plate ☐
   (c) Metal sheet ☐ (d) Soap bubble ☐
2. The metal liquid at room temperature is:
   (a) Aluminum ☐ (b) Copper ☐
   (c) Mercury ☐ (d) Nickel ☐
3. Which of the following cannot be compressed?
   (a) Cotton ☐ (b) Sponge ☐
   (c) Stone ☐ (d) Silk cloth ☐
4. Which of the following substances will dissolve in water?
   (a) Sand ☐ (b) Salt ☐
   (c) Chalk powder ☐ (d) Sawdust ☐
5. Which option is most commonly used for making safety pins?
   (a) Glass and wood ☐ (b) Plastic and glass ☐
   (c) Steel and plastic ☐ (d) Leather and wood ☐

B. Rearrange the Jumbled letters.

1. LETAM :- _____
2. SSLAG :- _____
3. TWARE :- _____
4. LOHACOL :- _____
5. SENROKEE :- _____
6. LAPSTIC :- _____

C. Fill in the Blanks.

Opaque	Copper	Soluble	Luster	Floats

1. Metals like gold and silver show _____.
2. Materials through which light cannot pass are called _____.
3. Wood usually _____ on water.
4. Salt is _____ in water.
5. The best conductor of heat among the given materials is _____.

D. State true or false.

1. All gases are completely soluble in water. ☐
2. Iron is harder than sponge. ☐
3. Glass is a transparent material. ☐
4. Silver ornaments sometimes become dull after use. ☐
5. Plastic is a good conductor of electricity. ☐

E. Write the Odd One Out.

1. Copper, Aluminum, Silver, Wood, Gold

   Reason: _____

2. Salt, Sand, Sugar, Glucose, Lactose

   Reason: _____

3. Glass, Plastic scale, Cardboard, Acrylic sheet, Soap bubble

   Reason: _____

4. Shower stall, Smoked glass, Metal sheet, Sunglasses, Waxed paper

   Reason: _____

5. Tube light, The Moon, The Sun, Burning candle, Firefly

   Reason: _____

F. Short questions answer.

1. Name two materials that are soluble and two that are insoluble in water.

   Ans. _____

   _____

2. Why are cooking utensils made of metals but their handles made of wood or plastic?

   Ans. _____

   _____

3. Give two examples of transparent, translucent, and opaque objects.

   Ans. _____

   _____

4. Why do we group materials?

   Ans. _____

   _____

5. Why does wood float in water but stone sinks?

   Ans. _____

   _____

6. What is meant by luster? Give one example.

   Ans. _____

   _____

7. Why are eatables stored in transparent containers?

   Ans. _____

   _____

8. Why do silver ornaments become dull after some time but gold ornaments remain shiny?

   Ans. _____

   _____

9. Name two good conductors and two poor conductors of electricity.

   Ans. _____

   _____

10. Why is water called a universal solvent?

    Ans. _____

    _____

G. Long questions answer.

1. Explain with examples: (a) The same object can be made from different materials, (b) The same material can be used to make different objects.

   Ans. _____

   _____

   _____

   _____

   _____

2. What are the properties of materials? Explain any four with examples.

   Ans. _____

   _____

   _____

   _____

   _____

3. What is meant by grouping of materials? Why is it important?

   Ans. _____

   _____

   _____

   _____

   _____

4. Why does ice float on water? Explain the scientific reason.

   Ans. _____

   _____

   _____

   _____

   _____

5. Write differences between transparent, translucent, and opaque objects with examples.

   Ans. _____

   _____

   _____

   _____

   _____

H. Give reason.

1. Some oils float on water while some sink.

   Ans. _____

   _____

2. It is difficult to drink hot tea in a steel cup.

   Ans. _____

   _____

3. We should not touch electric switches with wet hands.

   Ans. _____

   _____

4. Cooker handles are made of wood or plastic.

   Ans. _____

   _____

5. Bakery biscuits are kept in glass jars.

   Ans. _____

   _____

6. Ice floats on water.

   Ans. _____

   _____

I. Match the Following.

Column A	Column B	Ans.
1. Book	i. Glass	1. ____
2. Tumbler	ii. Leather	2. ____
3. Chair	iii. Paper	3. ____
4. Toy	iv. Plastic	4. ____
5. Shoes	v. Wood	5. ____

J. Give One-Word Answers.

1. Materials that do not dissolve in water :- _____
2. Materials through which no light passes :- _____
3. Materials that allow partial light :- _____
4. Materials that allow complete light :- _____
5. Objects that emit light on their own :- _____

K. Name three things made from

1. Rubber :- _____ _____ _____
2. Plastic :- _____ _____ _____
3. Wood :- _____ _____ _____
4. Wool :- _____ _____ _____
5. Steel :- _____ _____ _____

L. Case based study.

Read the passage and answer the questions:

Classifying materials based on properties like appearance, hardness, solubility, and conductivity helps us to identify their correct use in construction, daily life, and technology.

1. Why is classification of materials important?

   Ans. _____

2. Give two examples of poor conductors of electricity.

   Ans. _____

3. Is pure water a good conductor of electricity? Why/Why not?

   Ans. _____

4. Give one example where classification of materials is useful in daily life.

   Ans. _____

M. Assertion-Reason

Choose the correct option:

(a) A and R are correct, R explains A

(b) A and R are correct, but R does not explain A

(c) A is correct but R is wrong

(d) A is wrong but R is correct

1. (A): Water is a universal solvent.

   (R): Water dissolves many salts and substances.

   Ans. _____

   _____

2. (A): Metals are insulators of electricity.

   (R): Metals conduct electricity.

   Ans. _____

   _____

3. (A): Glass is transparent.

   (R): We can clearly see objects through glass.

   Ans. _____

   _____

4. (A): Wood sinks in water.

   (R): Wood is lighter than water.

   Ans. _____

   _____

5. (A): Lustrous materials have shiny surfaces.

   (R): Iron, copper, gold are examples of lustrous materials.

   Ans. _____

   _____

Answer

A. Multiple Choice Questions

1. (d) Soap bubble
2. (c) Mercury
3. (c) Stone
4. (b) Salt
5. (c) Steel and plastic

B. Rearrange the Jumbled letters

1. LETAM → METAL
2. SSLAG → GLASS
3. TWARE → WATER
4. LOHACOL → ALCOHOL
5. SENROKEE → KEROSENE
6. LAPSTIC → PLASTIC

C. Fill in the Blanks

1. Luster
2. Opaque
3. Floats
4. Soluble
5. Copper

D. State True or False

1. False 2. True 3. True 4. True 5. False

E. Odd One Out (with Reason)

1. Wood → All others are metals.
2. Sand → Others are soluble in water.
3. Soap bubble → Others are solid materials.
4. Waxed paper → It is translucent, others are opaque/transparent.
5. The Moon → It does not have its own light.

F. Short Questions Answer

1. Salt and sugar are soluble in water. Sand and chalk powder are insoluble.
2. Metals conduct heat, so they cook food easily. Handles are wood/plastic to prevent burns.
3. Transparent: Glass, Water; Translucent: Oiled paper, Frosted glass; Opaque: Wood, Stone.
4. Grouping makes study easy and avoids confusion. It also helps select the right material.
5. Wood is less dense than water, so it floats. Stone is denser, so it sinks.
6. Luster means shine on the surface of materials. Example: Gold shows luster.
7. Transparent containers make the items inside visible. This helps in easy identification.
8. Silver reacts with air and becomes dull. Gold does not react, so it stays shiny.
9. Good conductors: Copper, Aluminium; Poor conductors: Plastic, Wood.
10. Water dissolves many substances like salts and sugars. That is why it is a universal solvent.

G. Long Questions Answer

1. Transparency is the property that decides how much light can pass through a material. Transparent objects like glass allow full light, translucent objects like oiled paper allow partial light, and opaque objects like wood block light completely.
2. Grouping materials makes their study easier and avoids confusion. It helps us select suitable materials for different purposes, like using wood for furniture and glass for making windows.
3. Soluble substances dissolve in water, e.g., sugar and salt. Insoluble substances do not dissolve in water, e.g., sand and chalk powder. This property helps in separating and classifying materials.
4. Metals like aluminium and steel are good conductors of heat, so they are used for cooking. Handles are made of wood or plastic because they are poor conductors and protect us from burns.
5. Floating or sinking depends on the density of the material compared to water. Wood is less dense than water, so it floats, while stone is denser than water, so it sinks.

H. Give Reason

1. Some oils float on water while others sink because their density is different; lighter oils float, heavier oils sink.
2. It is difficult to drink hot tea in a steel cup because steel conducts heat quickly, making the cup very hot.
3. We should not touch electric switches with wet hands because water conducts electricity and can cause electric shocks.
4. Cooker handles are made of wood or plastic because they are poor conductors of heat and prevent burns.
5. Bakery biscuits are kept in glass jars because glass is transparent, so items are visible, and it protects them from dust.
6. Ice floats on water because it is less dense than water.

I. Match the Following

1 → (iii) 2 → (i) 3 → (v) 4 → (iv) 5 → (ii)

J. Give One-Word Answers

1. Insoluble substances
2. Opaque
3. Translucent
4. Transparent
5. Luminous objects

K. Name three things made from

1. Rubber → Tyres, Erasers, Gloves
2. Plastic → Bottles, Buckets, Chairs
3. Wood → Doors, Tables, Bats
4. Wool → Sweaters, Shawls, Blankets
5. Steel → Safety pins, Utensils, Tools

L. Case Study

1. To study and use materials correctly in daily life/industries.
2. Plastic, Wood.
3. No, pure water is a poor conductor (needs salts to conduct).
4. Example: Using glass for windows, metal for cooking.

M. Assertion-Reason

1. (a) A and R are correct, R explains A.
2. (c) A is correct but R is wrong.
3. (a) A and R are correct, R explains A.
4. (d) A is wrong but R is correct.
5. (a) A and R are correct, R explains A.