



Characteristics of Frequently Used Materials

A. Choose the correct answer:

1. Which of the following materials is commonly used for making electrical wires due to its high conductivity?
 - a) Iron
 - b) Copper
 - c) Plastic
 - d) Wood
2. What is the primary characteristic of glass that makes it suitable for making windows?
 - a) Opaque and heavy
 - b) Transparent and brittle
 - c) Flexible and soft
 - d) Conductive and magnetic
3. Which of the following materials is widely used in kitchen utensils due to its non-reactive nature?
 - a) Aluminum
 - b) Paper
 - c) Rubber
 - d) Wood

B. Fill in the Blanks:

1. Metals such as _____ and _____ are good conductors of electricity and are commonly used in wiring.
2. Plastic is preferred for making handles of cooking utensils because it is a _____.
3. The durability of a material depends on its resistance to _____ and _____.

C. Case Study:

A construction company conducted a study on different materials used for building houses. They compared three types of materials:

- **Material A** (Bricks and Cement): Provided strength and durability, suitable for long-term construction.
- **Material B** (Wood): Lightweight and provides good insulation but is prone to termites and fire hazards.



- **Material C** (Glass and Steel): Modern aesthetic appeal, strong but expensive and requires maintenance.

After years of use, they observed the following:

- Houses made of **Material A** were sturdy and lasted long but required regular maintenance against moisture damage.
- Houses made of **Material B** were visually appealing and warm but needed frequent repairs.
- **Material C** gave a modern look but increased construction costs significantly.

Questions & Answers:

1. What were the key factors affecting the durability of the houses?
2. Why is Material B considered less durable than Material A?
3. What are the advantages of using Material C despite its high cost?
4. Based on the study, which material would you recommend for long-term use and why?

D. Short Answer Questions:

1. Why is steel preferred in the construction of high-rise buildings?
2. How does the choice of materials affect the durability of a product?
3. What are the main properties of plastics that make them useful in daily life?

E. Long Answer Questions:

1. Explain the characteristics of commonly used materials such as metals, plastics, and ceramics, and their applications in daily life.
2. Discuss how material selection plays a role in sustainable and eco-friendly construction.
3. Compare and contrast the properties of natural and synthetic materials with examples of their uses.