

CLASS VII SCIENCE

Physical and chemical changes

Q1 Circle the odd one out from the following sets:

- a. souring of milk, burning of a candle, melting of ice, ripening of fruits
- b. new substances, change of shape, irreversible, permanent
- c. evaporation of water to form clouds, bursting of a cracker, baking of a cake, germination of seeds
- d. tearing a paper, writing on a paper, making paper boats from a piece of paper, burning a paper
- e. breaking a glass, photosynthesis of plants, making milk shakes, switching the fan

Q2 Justify the following changes as **Physical** or **Chemical**:

- i. eating of *vada*.
- ii. Beating an egg to make a cake.
- iii. Separating sand from gravel at the building site.
- iv. Nita fries an egg.
- v. A petrol can is left open in the garage. The vapour fills the garage.

Q3. Match the following:

Column A

- i. Rusting
- ii. Chemical change
- iii. Physical change
- iv. Crystallisation
- v. Galvanisation
- vi. Cut vegetables
- vii. Vinegar + Baking soda

Column B

- a. Physical properties may change
- b. Evaporation
- c. Oxidation
- d. Moisture
- e. Neutralisation reaction
- f. Usually irreversible
- g. Displacement reaction

Q4 E. Answer the following questions in brief:

- 1. State four characteristics of a physical change.
- 2. State four characteristics of a chemical change.
- 3. Give an example of a chemical change in which there is a change of colour that takes place.
- 4. Recall the factors that cause rusting to occur.
- 5. Why do cut vegetables take up a brown colouration when exposed in air?
- 6. Differentiate between physical and chemical changes. Give two examples for each.
- 7. Mention two irreversible physical changes. Explain why those changes are physical even though they are irreversible.
- 8. Why does rusting occur? Give four ways to prevent rusting.
- 9. What do you observe when you mix vinegar and baking soda? How do you perform a test for the issuing gas?
- 10. What is crystallisation? How can you get crystals of urea from its solution?