

- Identify the physical-reversible changes.  
(i) Melting of wax (ii) Slaking of lime  
(iii) Plucking of leaves (iv) Condensation of steam  
(a) (i) and (iii) (b) (ii) and (iv) (c) (ii) and (iii) (d) (i) and (iv)
- Which of the following are chemical changes?  
(i) Heating an iron blade (ii) Mixing baking soda with vinegar  
(iii) Making of a salt solution (iv) Burning of a magnesium ribbon  
(a) (i) and (iii) (b) (i) and (iv) (c) (ii) and (iv) (d) (ii) and (iii)
- Rusting of iron is a  
(a) physical, irreversible change (b) chemical, irreversible change  
(c) chemical, reversible change (d) physical, reversible change
- A chemical change may involve  
(a) change in colour only (b) change in temperature only  
(c) evolution of gas only (d) any or all of the above
- Which of the following are true when milk changes into curd?  
(i) Its state is changed from liquid to semi solid.  
(ii) It changes colour.  
(iii) It changes taste.  
(iv) The change cannot be reversed.  
Choose the correct option from below:  
(a) (i) and (ii) are correct. (b) (ii) and (iii) are correct.  
(c) (i), (iii) and (iv) are correct. (d) (i) to (iv) are correct.
- Iron pillar near the Qutub Minar in Delhi is famous for the following facts. Which of these facts is responsible for its long stability?  
(a) It is more than 7 metres high. (b) It weighs about 6000kg.  
(c) It was built more than 1600 years ago. (d) It has not rusted after such a long period.
- Which of the following statements is incorrect for a chemical reaction?  
(a) Heat may be given out but never absorbed. (b) Sound may be produced.  
(c) A colour change may take place. (d) A gas may be evolved.
- Two drops of dilute sulphuric acid were added to 1g of copper sulphate powder and then small amount of hot water was added to dissolve it (step I). On cooling, beautiful blue coloured crystals got separated (step II). Step I and Step II are  
(a) physical and chemical changes respectively (b) chemical and physical changes respectively  
(c) both physical change (d) both chemical change.

**Assertion-Reason Codes:**

- If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
  - If both Assertion and Reason are true and Reason is not the correct explanation of Assertion.
  - If Assertion is true but Reason is false.
  - If both Assertion and Reason are false.
9. Assertion: Mixing of salt in water is a reversible change.  
Reason: The original salt can be recovered by evaporation.

10. Assertion: Iron and rust are same thing.  
Reason: Zinc is coated with iron to prevent rusting.
11. Assertion: Slaking of lime is a chemical change.  
Reason: When carbon dioxide is passed through limewater, it turns milky due to the formation of a new substance,  $\text{CaCO}_3$ .
12. Assertion: Rusting of iron is faster in coastal areas.  
Reason: Percentage of moisture is higher in coastal areas.
13. Which of the following represents a displacement reaction.
- (a)  $\text{Ca(OH)}_2 + \text{CO}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$       (b)  $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$   
(c)  $\text{MgO} + \text{H}_2\text{O} \rightarrow \text{Mg(OH)}_2$       (d)  $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
14. Which of the following are both physical and chemical changes?
- (i) Burning of wood      (ii) Burning of candle      (iii) Burning of LPG      (iv) Burning of biogas  
(a) (i) and (iv)      (b) (ii) and (iv)      (c) (i) and (iii)      (d) (ii) and (iii)
15. Some examples of changes are given below:
- (i) Cutting a log of wood into pieces splinters      (ii) Breaking down of ozone  
(iii) Melting of glaciers      (iv) Lime water turning milky  
(v) Digestion of food      (vi) Tearing paper
- Classify the above changes into
- (i) Irreversible, physical change      (ii) Chemical change  
(iii) Reversible, physical change
- (a) (i) - i, vi      (ii) - ii, iv, v      (iii) - iii      (b) (i) - i, ii, v      (ii) - iv, vi  
(c) (i) - i      (ii) - ii, iv      (iii) - iii, v, vi      (d) (i) - vi      (ii) - iii, v      (iii) - i, ii, iv