

Board –CBSE

Class –7<sup>th</sup>

Topic – Physical and Chemical

1. Photosynthesis is a:

- (a) Chemical change
- (b) Physical change

**Ans:** (b)

2. Classify the changes involved in the following processes as physical or chemical changes:

- (a) Photosynthesis
- (b) Dissolving sugar in water
- (c) Burning of coal
- (d) Melting of wax
- (e) Beating aluminum to make aluminum foil
- (f) Digestion of food

**Ans:** (a) Chemical change.

- (b) Physical change.
- (c) Chemical change
- (d) Physical change
- (e) Physical change
- (f) Chemical change

3. In chemical changes

- a) No new substance with different colour is formed
- b) No change in chemical properties takes place
- c) New substance with new property is formed
- d) New substance with different shape is formed

**Ans.** (c)

4. Explain how iron rim is fixed over a wooden wheel. Which type of change is associated with this activity?

**Ans:** The iron rim taken, has slightly smaller diameter than the wooden wheel the iron rim is fixed over the wooden wheel by heating the rim first. On heating, the iron expands and becomes slightly bigger than the wheel. Once mounted, water is poured on the rim to cool it down. On cooling the iron rim contracts to its original size. As a result, it becomes fixed on the wooden

wheel. Iron expands on heating and contracts on cooling, this physical change is associated with this activity.

5. Dissolving sugar in water

- (a) Physical change
- (b) Chemical change

**Ans:** (a)

6. Respiration is a \_\_\_\_\_ change as energy is released.

- (a) Exothermic
- (b) Endothermic
- (c) Reversible
- (d) Periodic

**Ans:** (a)

7. Differentiate between physical changes and chemical changes.

**Ans:**

Physical Changes	Chemical Changes
1. Composition of substance remains same no new substances are formed	1. Composition of substance changes. New substance are formed.
2. Change in shape, size or physical state occurs. Chemical properties of substance remain same	2. New substance have new property. Physical state, different physical and chemical properties.
3. Physical changes are reversible.	3. Chemical changes are irreversible.
4. e.g.: melting of ice, expansion of iron on melting.	4. Burning of wood, rusting of iron.

8. Beating aluminium to make aluminium foil

- (a) Chemical change
- (b) Physical change

**Ans.** (b)

9. Colour of copper sulphate solution change when iron nail is added to it due to

- (a) Physical change of copper sulphate

- (b) Displacement of iron by copper
- (c) Formation of precipitate
- (d) Displacement of copper by iron

**Ans:** (d)

**10.** What are non-periodic changes? Also list two examples of non-periodic changes.

**Ans:** Changes that do not occur at fixed intervals of time are termed as non –periodic changes. Such changes may be unpredictable. Examples are:

- (a) earthquake
- (b) eruption of volcano
- (c) An accident
- (d) Sneezing

**11.** Cutting a log of wood into pieces is a chemical change.

- (a) False
- (b) True

**Ans.** (a)

**12.** When food get spoiled, it produces foul smell this is a

- (a) Periodic change
- (b) Desirable change
- (c) Physical change
- (d) Chemical change

**Ans.** (d)

**13.** What are slow and fast changes? Give examples also.

**Ans:** Slow changes: Changes that take place in longer duration i.e. few hours, days, months or years are called slow changes. Rusting of iron, growth of a baby, cooking of food, formation of coal etc. are examples of slow changes. Fast changes: changes that take place in a short duration (instant or nick of time) are called fast changes. Bursting of cracker, burning of paper etc. are examples of fast changes.

**14.** The chemical name of baking soda is \_\_\_\_\_.

- (a) Calcium carbonate
- (b) Sodium hydrogen carbonate

**Ans.** (b)

**15.** What is irreversible changes? Give examples of irreversible change.

**Ans:** The change in a substance which cannot be converted back to its original form is called irreversible change.

Examples are:

- (a) burning of candle
- (b) germination of seed
- (c) bursting a balloon
- (d) rusting of iron

**16.** In neutralisation reaction, acid reacts with base to form \_\_\_\_\_ and water.

- (a) Cations
- (b) Salt
- (c) Ions
- (d) All of these

**Ans:** (b)

**17.** What are reversible changes? Give examples.

**Ans:** Those changes which can be reversed to obtain original form by removing the cause of change are called reversible changes.

Examples are:

- (a) melting of ice
- (b) folding of paper
- (c) evaporation of water

**18.** Two methods by which rusting of iron can be prevented are \_\_\_\_\_ and \_\_\_\_\_.

**Ans:** painting and galvanization

**19.** A bag of cement lying in the open gets wet due to rain during the night. The next day the sun shines brightly. Do you think the changes, which have occurred in the cement, could be reversed?

**Ans:** Due to water, cement hardens and its composition changes. Chemical changes, in general, are irreversible changes. since it is a chemical change which cannot be reversed.

**20.** Ozone layer in troposphere protect us from

- (a) Ultra violet radiation
- (b) Visible radiation
- (c) Acid rain

(d) Infrared radiation

**Ans:** (a)