

## Changes Around Us

### Practice Exercise

1. Which of the following is incorrect about physical changes?  
 (a) No new substance is formed.  
 (b) Are reversible changes.  
 (c) Change in size is a physical change.  
 (d) Are irreversible changes.  
 (e) None of these
2. Rusting of iron is an example of:  
 (a) Reversible change  
 (b) Irreversible change  
 (c) Physical change  
 (d) No change  
 (e) None of these
3. Raghu in his craft class is making beads by using POP (plaster of paris). The setting of beads by using water is a/an:  
 (a) Physical change  
 (b) Reversible change  
 (c) Irreversible change  
 (d) No change  
 (e) None of these
4. The energy required to start a chemical reaction is known as:  
 (a) Kinetic energy      (b) Activation energy  
 (c) Potential energy    (d) Magnetic energy  
 (e) None of these
5. Which among the following is not an example of a reversible change?  
 (a) Dissolving sugar in water.  
 (b) Changing of wheat to flour.  
 (c) Folding up of a paper.  
 (d) Melting of coaltar.  
 (e) None of these
6. Name the gas which is produced when washing soda reacts with lemon juice.  
 (a) Oxygen      (b) Nitrogen  
 (c) Argon      (d) Carbon dioxide  
 (e) None of these
7. The brown coloured deposition on an iron box when kept in humid air for some days is called:  
 (a) Dust      (b) Rust  
 (c) Argon      (d) All the above  
 (e) None of these
8. Softening of iron on heating is:  
 i. Reversible change  
 ii. Chemical change  
 iii. Physical change  
 iv. Irreversible change  
 Which of the following is correct for the above statement?  
 (a) i and iii      (b) ii and iii  
 (c) i and iv      (d) iii and iv  
 (e) None of these
9. Which of the following is an example of periodic change?  
 (a) Occurrence of earthquake  
 (b) Heartbeat  
 (c) A car accident  
 (d) Landslide  
 (e) None of these
10. Which among the following is an irreversible change?  
 (a) Melting of ice.  
 (b) Formation of flower from bud.  
 (c) Heating of milk.  
 (d) Kicking a football.  
 (e) None of these
11. Which change among the following changes is not included in a reversible change?  
 (a) Change in state.  
 (b) Change of position.  
 (c) Change in internal structure.  
 (d) Change of colour.  
 (e) None of these

**12.** A substance present in plants which itself does not undergo any change but helps in changing water and carbon dioxide into food.

- (a) Flower (b) Bud  
(c) Leaf (d) Chlorophyll  
(e) None of these

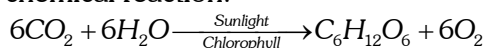
**13.** While making chapati, Radhika observed the following changes, which among the following is a reversible change?

- (a) Changing of flour into dough.  
(b) Rolling of chapati.  
(c) Baking of chapati.  
(d) Eating a chapati.  
(e) None of these

**14.** Name the substance which initiates a chemical reaction.

- (a) Products (b) Reactants  
(c) Inhibitors (d) Catalysts  
(e) None of these

**15.** Match the following on the basis of given chemical reaction:



| Column A |               | Column B |                |
|----------|---------------|----------|----------------|
| (i)      | $\text{CO}_2$ | (A)      | Product        |
| (ii)     | Chlorophyll   | (B)      | Photosynthesis |
| (iii)    | $\text{O}_2$  | (C)      | Reactant       |
| (iv)     | Process       | (D)      | Catalyst       |

- (a) (i-D), (ii-C), (iii-A), (iv-B)  
(b) (i-B), (ii-D), (iii-C), (iv-A)  
(c) (i-C), (ii-D), (iii-A), (iv-B)  
(d) (i-C), (ii-B), (iii-D), (iv-A)  
(e) None of these

**16.** Iron blade of spade is made slightly smaller than the wooden handle because:

- (a) Iron ring contracts on heating.  
(b) Iron ring expands on heating.  
(c) Iron ring remains the same on heating.  
(d) Wooden handle expands on heating.  
(e) None of these

**17.** Which among the following is an irreversible change?

- (a) Ageing of man.  
(b) Making cheese from milk.

(c) Burning of incense stick.

(d) All the above (e) None of these

**18.** Which pair among the following are the reversible change?

- (a) Melting of wax and burning of wax.  
(b) Melting of ice and freezing of ice.  
(c) Rolling a roti and baking a roti.  
(d) Folding of paper and burning of paper.  
(e) None of these

**19.** Which of the following cannot be reversed?

- (a) Boiling of an egg. (b) Folding of paper.  
(c) Knitting of sweater. (d) Melting of wax.  
(e) None of these

**20.** The change which can be reversed.

- (a) Chemical change (b) Physical change  
(c) Both (a) and (b) (d) Either (a) or (b)  
(e) None of these

**21.** Which among the following is a characteristic of physical change?

- (a) Involvement of great amount of heat energy.  
(b) Change in states.  
(c) Change in chemical composition.  
(d) Formation of a new substance  
(e) None of these

**22.** The process in which iron is covered with a brown layer due to moisture and oxygen is called

- (a) Evaporation (b) Condensation  
(c) Rusting (d) Burning  
(e) None of these

**23.** When water freezes to ice:

- (a) Heat energy is absorbed.  
(b) Heat energy is given out.  
(c) Both (a) and (b)  
(d) Either (a) or (b)  
(e) None of these

**24.** Making of curd from milk is which kind of change?

- (a) Unwanted change  
(b) Reversible change  
(c) Irreversible change  
(d) No change  
(e) None of these

- 25.** \_\_\_\_\_ is a substance in a chemical reaction which does not undergo any change but helps in increasing the rate of chemical reaction.  
 (a) Reactant (b) Product  
 (c) Inhibitor (d) Catalyst  
 (e) None of these
- 26.** When cold water is poured over the hot iron rim in a wooden wheel:  
 (a) It expands. (b) It contracts.  
 (c) It remains same. (d) All the above  
 (e) None of these
- 27.** In general, metals:  
 (a) Expand on heating  
 (b) Contract on heating  
 (c) Are not affected by heating  
 (d) All the above  
 (e) None of these
- 28.** Which of the following is not required in the process of rusting?  
 (a) Water (b) Oxygen  
 (c) Iron (d) All the above  
 (e) None of these
- 29.** Which of the following can be considered as a fast change?  
 (a) Growth of child  
 (b) Germination of seed  
 (c) Bursting of cracker  
 (d) Cooking of food  
 (e) None of these
- 30.** When carbon dioxide and water combines they form glucose, this is an example of change.  
 (a) Physical (b) Chemical  
 (c) Reversible (d) Undesirable  
 (e) None of these
- 31.** Inflating a balloon is a/an \_\_\_\_\_ change.  
 (a) Irreversible (b) Chemical  
 (c) Reversible (d) Periodic  
 (e) None of these
- 32.** Which among the following is a reversible change?  
 (a) Growth in plants and animals.  
 (b) Burning of cloth.  
 (c) Cooking of food.  
 (d) Bursting a balloon  
 (e) None of these
- 33.** Which among the following is incorrect statement?  
 (a) Rusting of iron is irreversible change.  
 (b) Ripening of fruits is a chemical change.  
 (c) Breaking of glass is a reversible change.  
 (d) All the above  
 (e) None of these
- 34.** Exothermic changes are changes in which:  
 (a) Heat is absorbed. (b) Heat is liberated.  
 (c) Both (a) and (b) (d) Either (a) or (b)  
 (e) None of these
- 35.** Sawing a piece of wood is which kind of change?  
 (a) Reversible change  
 (b) Irreversible change  
 (c) Chemical change  
 (d) Periodic change  
 (e) None of these
- 36.** Which kind of change it will be, if a sac of cement gets wet completely and left in open?  
 (a) Irreversible change (b) Reversible change  
 (c) Biological change (d) Desirable change  
 (e) None of these
- 37.** Making biogas from cow-dung is which kind of change?  
 (a) Irreversible change (b) Reversible change  
 (c) Both (a) and (b) (d) Either (a) or (b)  
 (e) None of these
- 38.** Spilled water on the table when evaporates, the process involves:  
 (a) Releasing of heat  
 (b) Absorption of heat  
 (c) Both (a) and (b)  
 (d) Either (a) or (b)  
 (e) None of these
- 39.** Expansion of iron on heating is which kind of change?  
 (a) Chemical (b) Desirable  
 (c) Reversible (d) Both (b) and (c)  
 (e) None of these

**40.** The new substance formed during or after a chemical reaction is:

- (a) Catalyst                      (b) Inhibitor  
(c) Product                      (d) Reactant  
(e) None of these

### Answer Key

|              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| <b>1.</b> D  | <b>2.</b> B  | <b>3.</b> C  | <b>4.</b> B  | <b>5.</b> B  |
| <b>6.</b> D  | <b>7.</b> B  | <b>8.</b> A  | <b>9.</b> B  | <b>10.</b> B |
| <b>11.</b> C | <b>12.</b> D | <b>13.</b> B | <b>14.</b> B | <b>15.</b> C |
| <b>16.</b> B | <b>17.</b> D | <b>18.</b> B | <b>19.</b> A | <b>20.</b> B |
| <b>21.</b> B | <b>22.</b> C | <b>23.</b> B | <b>24.</b> C | <b>25.</b> D |
| <b>26.</b> B | <b>27.</b> A | <b>28.</b> E | <b>29.</b> C | <b>30.</b> B |
| <b>31.</b> C | <b>32.</b> E | <b>33.</b> C | <b>34.</b> B | <b>35.</b> B |
| <b>36.</b> A | <b>37.</b> A | <b>38.</b> B | <b>39.</b> D | <b>40.</b> C |