



VIDYA BHARATI SCHOOL

Olympiad(2017-18) April

Grade X

Subject: Science

1. Which of the following gas is used as antioxidant in plastic bags containing potato chips?
(A) Oxygen
(B) Nitrogen
(C) Hydrogen
(D) Carbon monoxide
2. Identify any antioxidant from the following, which is used to prevent rancidity in foods.
(A) Butylated hydroxyl anisole
(B) Sodium hydroxide
(C) Sodium carbonate
(D) None of these
3. Which of the following statement is not correct?
(A) Corrosion is the process in which metals are eaten up gradually by the action of air, moisture or a chemical (such as an acid) on their surface.
(B) The rusting of iron is a redox reaction.
(C) Corrosion weakens the iron and steel objects.
(D) Chemical formula of rust is $Fe_3O_4 \cdot xH_2O$
4. Antioxidants are
(A) Reducing agents
(B) Oxidizing agents
(C) Salts
(D) None of these
5. Reduction means
(A) Loss of oxygen
(B) Gain of hydrogen
(C) Both (1) and (2)
(D) None of these
6. Which of the following statement is incorrect?
(A) Rancidity can be prevented by packaging fat and oil containing foods in nitrogen gas.
(B) Rancidity can be retarded by keeping food in a refrigerator.
(C) Rancidity can be retarded by storing food in air-tight containers.
(D) Rancidity cannot be prevented by adding antioxidants to foods containing fats and oils.
7. The substance reduced in the reaction is
 $MnO_2 + 4HCl \longrightarrow MnCl_2 + 2H_2O + Cl_2$
(A) MnO_2
(B) HCl

- (C) MnCl_2
- (D) H_2O

8. This is an example of



- (A) Exothermic
- (B) Combination reaction
- (C) Redox reaction
- (D) Both (1) and (2)

9. Which of the following is a combination and which is a displacement reaction?

- (a) $\text{Cl}_2 + 2\text{KI} \rightarrow 2\text{KCl} + \text{I}_2$
- (b) $2\text{K} + \text{Cl}_2 \rightarrow 2\text{KCl}$

10. Identify A, B, C and D in the following chemical reaction:



- (A) A - 4, B - 3, C - 4, D - 1
- (B) A - 1, B - 3, C - 4, D - 4
- (C) A - 3, B - 4, C - 1, D - 4
- (D) A - 1, B - 4, C - 3, D - 4

11. Chemical used in the photography is:

- (A) Silver bromide
- (B) Silver nitrate
- (C) Sodium chloride
- (D) Potassium chloride

12. Colour of the fumes of nitrogen dioxide (NO_2) is:

- (A) Yellow
- (B) Red
- (C) Brown
- (D) Blue

13. 41. Which of them is not a skeletal equation?

- (a) $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}$
- (b) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
- (c) $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$

- (A) (a) only
- (B) (a) and (b)
- (C) (b) only
- (D) (b) and (c)

14. Fats become rancid due to:

- (A) Oxidation reaction
- (B) Reduction reaction
- (C) Decomposition reaction
- (D) Precipitation reaction

15. A chemical reaction is said to be exothermic if it _____.

- (A) Absorbs energy
- (B) Releases energy
- (C) Both (1) and (2)
- (D) None of the above

16. A chemical reaction is said to be endothermic if it _____

- (A) Releases energy
- (B) Absorbs energy
- (C) Emit light
- (D) Emit Heat

17. When a reaction takes place in presence of light then it is called as _____.

- (A) Photochemical Reaction
- (B) Electrochemical reaction
- (C) Electromechanical reaction
- (D) None of the above

18. Which of the factors affect the rate of reaction:

- (A) Temperature
- (B) Catalyst
- (C) Effect of light
- (D) All the above

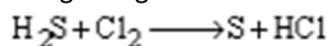


19.

The above reaction is an example of

- (A) Displacement reaction
- (B) Decomposition reaction
- (C) Combination reaction
- (D) Double displacement reaction

20. Regarding the reaction:



Identify the correct statement.

- (I) Cl₂ is oxidising agent
- (II) Cl₂ is reduced
- (III) H₂S is reducing agent
- (IV) H₂S is oxidized

- (A) I and II are correct
- (B) II and III are correct
- (C) III and I are correct
- (D) All are correct.

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www.olympiadhelper.com