

NOTRE DAME HOLY CROSS SCHOOL

1ST PERIODICAL TEST -2021

SCIENCE

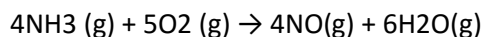
CLASS -X

A. MULTIPLE CHOICE QUESTION (1X15=15)

1. Which of the following is not a physical change?

- (a) Boiling of water to give water vapour (b) Melting of ice to give water
(c) Dissolution of salt in water (d) Combustion of Liquefied Petroleum Gas (LPG)

2. The following reaction is an example of a



- (i) displacement reaction (ii) combination reaction (iii) redox reaction
(iv) neutralisation reaction

- (a) (i) and (iv)
(b) (ii) and (iii)
(c) (i) and (iii)
(d) (iii) and (iv)

3. Which among the following is (are) double displacement reaction(s)?

- (i) $\text{Pb} + \text{CuCl}_2 \rightarrow \text{PbCl}_2 + \text{Cu}$
(ii) $\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \rightarrow \text{BaSO}_4 + 2\text{NaCl}$
(iii) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
(iv) $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$

- (a) (i) and (iv)
(b) (ii) only
(c) (i) and (ii)
(d) (iii) and (iv)

4. In the double displacement reaction between aqueous potassium iodide and aqueous lead nitrate, a yellow precipitate of lead iodide is formed. While performing the activity if lead nitrate is not available, which of the following can be used in place of lead nitrate?

- (a) Lead sulphate (insoluble)
- (b) Lead acetate
- (c) Ammonium nitrate
- (d) Potassium sulphate

5. In which of the following chemical equations, the abbreviations represent the correct states of the reactants and products involved at reaction temperature?

- (a) $2\text{H}_2(\text{l}) + \text{O}_2(\text{l}) \rightarrow 2\text{H}_2\text{O}(\text{g})$
- (b) $2\text{H}_2(\text{g}) + \text{O}_2(\text{l}) \rightarrow 2\text{H}_2\text{O}(\text{l})$
- (c) $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{l})$
- (d) $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{g})$

6. Which of the following are combination reactions?

- (i) $2\text{KClO}_3 \xrightarrow{\text{Heat}} 2\text{KCl} + 3\text{O}_2$
- (ii) $\text{MgO} + \text{H}_2\text{O} \rightarrow \text{Mg}(\text{OH})_2$
- (iii) $4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$
- (iv) $\text{Zn} + \text{FeSO}_4 \rightarrow \text{ZnSO}_4 + \text{Fe}$

- (a) (i) and (iii)
- (b) (iii) and (iv)
- (c) (ii) and (iv)
- (d) (ii) and (iii)

7. Which is the first enzyme to mix with food in the digestive tract?

- (a) Pepsin
- (b) Cellulase
- (c) Amylase
- (d) Trypsin

8. Which is the correct sequence of parts in human alimentary canal?

- (a) Mouth → stomach → small intestine → oesophagus → large intestine
- (b) Mouth → oesophagus → stomach → large intestine → small intestine
- (c) Mouth → stomach → oesophagus → small intestine → large intestine
- (d) Mouth → oesophagus → stomach → small intestine → large intestine

9. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?

- (a) Proteins breaking down into amino acids
- (b) Starch breaking down into sugars
- (c) Fats breaking down into fatty acids and glycerol
- (d) Absorption of vitamins

10. The inner lining of stomach is protected by one of the following from hydrochloric acid. Choose the correct one

- (a) Pepsin
- (b) Mucus
- (c) Salivary amylase
- (d) Bile

11. The correct sequence of anaerobic reactions in yeast is

- (a) Glucose Pyruvate Ethanol + Carbondioxide
- (b) Glucose Pyruvate Lactic acid
- (c) Glucose Pyruvate Lactic acid
- (d) Glucose Pyruvate Ethanol + Carbondioxide

12. Which is the correct sequence of air passage during inhalation?

- (a) Nostrils → larynx → pharynx → trachea → lungs
- (b) Nasal passage → trachea → pharynx → larynx → alveoli
- (c) larynx → nostrils → pharynx → lungs

(d) Nostrils → pharynx → larynx → trachea → alveoli

13. Electrical resistivity of a given metallic wire depends upon

(a) its length

(b) its thickness

(c) its shape

(d) nature of the material

14. Which of the following represents voltage?

(a) Work done/ Current × Time

(b) Work done × Charge

(c) Work done × Time /Current

(d) Work done × Charge × Time

15. A cylindrical conductor of length l and uniform area of crosssection A has resistance R . Another conductor of length $2l$ and resistance R of the same material has area of cross section

(a) $A/2$

(b) $3A/2$

(c) $2A$

(d) $3A$

B. SHORT ANSWER TYPE (2 X 5=10)

1. Why do fire flies glow at night?

2. Why do fishes die when taken out of water?

3. Why is blood circulation in human heart called double circulation?

4. Why is parallel arrangement used in domestic wiring?

5. A current of 1 ampere flows in a series circuit containing an electric lamp and a conductor of 5Ω when connected to a 10 V battery.

Calculate the resistance of the electric lamp.

B. Long Answer type. (3x5=15)

1. Write the balanced equation for the following chemical reactions.
 - (i) Hydrogen + Chlorine \rightarrow Hydrogen chloride
 - (ii) Barium chloride + Aluminium sulphate \rightarrow Barium sulphate + Aluminium chloride
 - (iii) Sodium + Water \rightarrow Sodium hydroxide + Hydrogen
2. How is the small intestine designed to absorb digested food ?
3. On what factors does the resistance of a conductor depend ?
OR
List the factors on which the resistance of a conductor in the shape of a wire depend?