

CHEMISTRY

BOOKS - EDUCART PUBLICATION

SAMPLE PAPER 11

Section A

1. Identify the balanced chemical equation from the following:

A.

$$Pb(NO_3)_{2\,(\,s\,)}\, o 2PbO_{\,(\,s\,)}\,+4NO_{2\,(\,g\,)}\,+O_{2\,(\,g\,)}$$

В.

$$2Pb(NO_3)_{2\,(\,s\,)}\, o 2PbO_{\,(\,s\,)}\,+4NO_{2\,(\,g\,)}\,+O_{2\,(\,g\,)}$$

C.

$$2Pb(NO_3)_{2\,(\,s\,)}\, o 2PbO_{\,(\,s\,)}\,+2NO_{2\,(\,g\,)}\,+O_{2\,(\,g\,)}$$

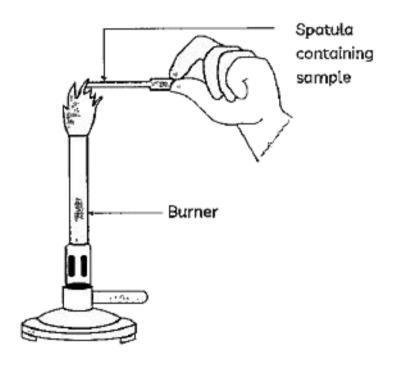
D.

$$Pb(NO_3)_{2\hspace{0.05cm}(\hspace{0.05cm}s\hspace{0.05cm})} o PbO_{\hspace{0.05cm}(\hspace{0.05cm}s\hspace{0.05cm})} + 2NO_{2\hspace{0.05cm}(\hspace{0.05cm}g\hspace{0.05cm})} + O_{2\hspace{0.05cm}(\hspace{0.05cm}g\hspace{0.05cm})}$$

Answer:



2. Select the correct observation when salt samples such as $NaCl, KI, BaCl_2$ is taken on a metal spatula and heated directly on the flame as shown in the figure below:

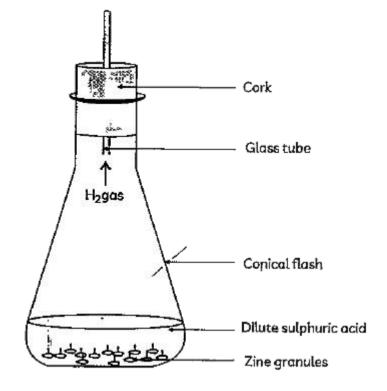


A. The salts melt immediately

- B. The salts give out characteristics flame upon heating
- C. The salts do not melt easily
- D. The salts undergo sublimation



3. Which of the following characteristics can be observed when dilute sulphuric acid is added to zinc granules in a conical flask?



- (I) Evolution of a gas
- (II) Increase in temperature
- (III) decrease in temperature
- (IV) Formation of precipitate
 - A. Only (I)
 - B. Both (I) and (II)

C. Both (II) and (IV)

D. Both (I) and (IV)

Answer:



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4. When air is blown from mouth into a test - tube containing lime water, the lime water turned milky due to the presence of

A. O_2

B. N_2

 $\mathsf{C}.\,CaCO_3$

D. CO_2

Answer:



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5. Consider the chemical reaction given below and identify the row containing substances oxidized and reduced:

$$Fe_2O_3 + 3CO
ightarrow 2Fe + 3CO_2$$

Select the correct statements:

- (I) Fe_2O_3 is reduced to Fe
- (II) Fe is oxidized to Fe_2O_3

(IV) CO_2 is reduced to CO

(III) CO is oxidized to CO_2

A. Both (I) and (III)

B. Both (I) and (IV)

C. Both (II) and (III)

D. Both (II) and (IV)



Answer:

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6. $Fe_2O_3+2Al o Al_2O_3+2Fe$

The above reaction is an example of a

- A. combination reaction
- B. displacement reaction
- C. decomposition reaction
- D. double displacement reaction



7. What happens when sodium carbonate decahydrate is heated?

- A. It decompose to form sodium hydroxide and water
- B. It melts and form aqueous solution
- C. It becomes anhydrous
- D. Both (a) and (b)

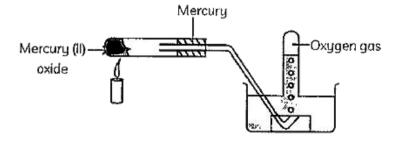


8. Why is the electrolysis of a concentrated sodium chloride known as chloralkali process?

- A. Chloralkali is the name of the scientist
- B. Chlor for chlorine, alkali for alkaline earth metals
- C. Chlor for chlorine, alkali for sodium hydroxide
- D. Chlor for chloride, alkali for potassium hydroxide



9. The diagram below represent



- A. displacement reaction
- B. electrolysis reaction
- C. photodecomposition reaction
- D. thermal decomposition reaction

Answer:



10. The characteristic processes observed in anaerobic respiration are :

- (I) presence of oxygen
- (II) release of carbon dioxide
- (III) release of energy
- (IV) release of lactic acid

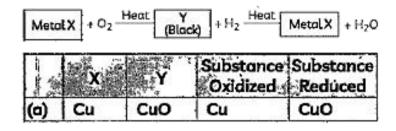


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Section B

1. Identify the substances marked X and Y from the figure below and select the row containing correct

information:



(b)	Fe	Fe ₂ O ₃	Fe	Fe ₂ O ₃
(c)	Cu	CuO	CuO	Cu
(d)	Fe	Fe ₂ O ₃	Fe ₂ O ₃	Fe



2. Akshat is suffering from the problem of acidity after overeating. Which of the following would you suggest as a remedy?

A. Lemon juice

- B. Baking soda
- C. Vinegar
- D. Cinnamon seeds



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3. A silver spoon is kept immersed in an aqueous copper sulphate solution. What change will take place?

A. $AgSO_4$ is formed

- B. Blue colour of $CuSO_4$ fades
- C. Both (a) and (b)
- D. No reaction occurs



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4. Select the row containing correct cation and anion in calcium oxide:

	Cation	Anion	
(a)	[Ca ²⁺]	[O ²⁻]	
(b)	[Ca ²⁺]	[0 -]	
(c)	[Ca ⁺]	[O ²⁻]	
(d)	[Ca ⁺]	[0 -]	

5. Why is sodium carbonate a basic salt?

A. sodium carbonate is a strong base

B. sodium carbonate is a salt of strong acid and

weak base

C.
$$NaOH + H_2CO_3
ightarrow Na_2CO_3 + 2H_2O$$

D. Both (b) and (c)

Answer:



6. The pH of soil A is 7.5 while that of soil B is 4.5. Which of the two soils, A or B, should be treated powdered chalk to adjust its pH and why?

- A. Soil A
- B. Soil B
- C. Both A and B
- D. Information is insufficient

Answer:



7. Assertion (A): Strength of the acid decreases with dilution.

Reason (R): Ionization of an acid increase with dilution.

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Answer:

8. Question consist of two statements-Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

Assertion (A): Silver bromide is advised to store in dark bottles.

Reason (R): Silver bromide decomposes when exposed to light.

A. Both A and R are true, and R is the correct explanation of A.

- B. Both A and R are true, but R is not the correct explanation of A.
- C. A is true but R is false.
- D. A is false but R is true.



9. Assertion (A): Veins have thick walls to collect blood from different organs.

Reason (R): Blood in veins are not under pressure.

A. Both A and R are true, and R is the correct explanation of A.

B. Both A and R are true, but R is not the correct explanation of A.

C. A is true but R is false.

D. A is false but R is true.

Answer:



10. Select the correct statements:

Transpiration helps in:

(I) Absorption and upward movement of minerals from roots to leaves

(II) Absorption and upward movement of soluble products of photosynthesis from roots to leaves(III) Upward movement of water from roots to leaves(IV) Temperature regulation



Section C

Case 1:

1. Questions are based on Case Study -1

Sub- stance	pН	Colour shown by universal indicator	
Α	5.5	Greenish yellow	
В	11	Blue	
С	0	Dark red	
D	9.5	Turquoise	
E	3	Orange	

The substance D can not be used.

- A. As baking soda
- B. In fire extinguisher
- C. In soaps and detergent
- D. in cleaning of metals

Answer:



2. Questions are based on Case Study -1

Case 1:

Sub- stance	pН	Colour shown by universal indicator	
Α	5.5	Greenish yellow	
В	11	Blue	
С	0	Dark red	
D	9.5	Turquoise	
E 3		Orange	

Which substance is used-in used in cakes to make them fluffy?

A.E

B. B

C. C

D. D

Answer:

