

CHEMISTRY

BOOKS - NAVNEET PUBLICATION

CHEMICAL REACTIONS AND EQUATIONS

Solved

1. What are the types of moecules of elements and compounds?



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2. What is meant by valency of elements?



3. What is the requirement for writing molecular formulae of different compounds? How are the molecular formulae of the compounds written?

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4. Is it possible to produce hydrogen by decomposition of water by means of heat, electricity or light?



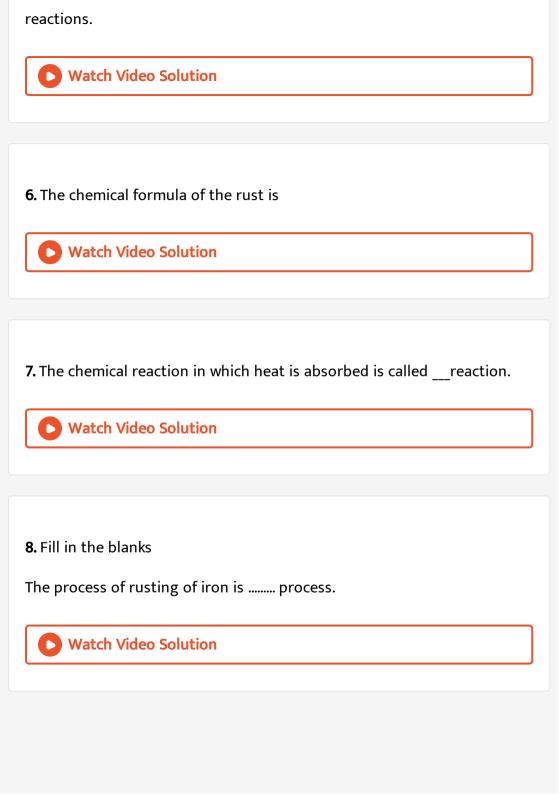
Exercise

1. Fill in the blanks

Organic waste is decomposed by microorganism and as a result manure and....... are formed.



2. Fill in the blanks is formed on mixing yeast in glucose solution under proper condition. Watch Video Solution 3. Fill in the blanks The chemical reaction during which H 2g is lost is termed as...... Watch Video Solution 4. Fill in the blanks Corrosion can be prevented by using...... **Watch Video Solution** 5. Fill in the blanks The chemical reactions in which heat is liberated are called



9. Fill in the blanks

When oil and fats are oxidised or even allowed to stand in air for a long time, they become



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10. Fill in the blanks

...... are used to prevent oxidation of food.



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11. Fill in the blanks

Carbon dioxide is passed through water. The reaction is areaction.



12. Fill in the blanks

Calcium carbonate is heated . The reaction is areaction.



13. Fill in the blanks

Zinc strip is dipped in a CuSO 4 solution. The reaction is areaction.



14. Fill in the blanks

Silver nitrate solution is added to NaCl solution . The reaction is a

....reaction.



15. Fill in the blanks

The slow process of decay or destruction of a metal due to effect of air, moisture and acids on it is known as.....



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16. Choose the correct alternative and write it along with its allotted alphabet:

The reaction of iron nail with copper sulphate solution is.....reaction.

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

Answer:



17. Choose the correct alternative and write it along with its allotted alphabet: Reddish brown deposition formed on iron nails kept in a solution of copper sulphate is: A. Cu 20 B. Cu C. CuO D. CuS **Answer:** Watch Video Solution 18. Choose the correct alternative and write it along with its allotted alphabet:

Th	ne reaction $CuSO_{4 (aq)} + Zn_{(s)} \rightarrow ZnSO_{4 (aq)} +$		
Cu	ı _(s) is a reaction.	is	a
•••••	reaction		
	A. displacement		
	B. double displacement		
	C. decomposition		

D. combination

Answer:

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19. Choose the correct alternative and write it along with its allotted alphabet:

.....is a combination reaction.

B. (b) $H_2 + Cl_2 \rightarrow 2HCl$

A (a) $Cu + H_2SO_4 \rightarrow CuSO_4 + H_2$

C. (c)
$$^{2\text{HgO}} \xrightarrow{\Delta} ^{2\text{Hg} + \text{O}_2}$$

D.
$$(d)$$
 CaCO₃ $\xrightarrow{\Delta}$ CaO + CO₂

Answer:



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20. Choose the correct alternative and write it along with its allotted alphabet:

.....is a decomposition reaction.

A. (a)
$$CaCO_3 \xrightarrow{\Delta} CaO + CO_2$$

B. (b)
$$H_2O + CO_2 \rightarrow H_2CO_3$$

$$C$$
 (c) $CaS + 2HCl \rightarrow CaCl_2 + H_2S$

$$D$$
 (d) $2H_2 + O_2 \rightarrow 2H_2O$

Answer:



21. Choose the correct alternative and write it along with its allotted alphabet:

In a chemical equation the...... are written on the left hand side.

A. products

B. reactants

C. catalysts

D. elements

Answer:

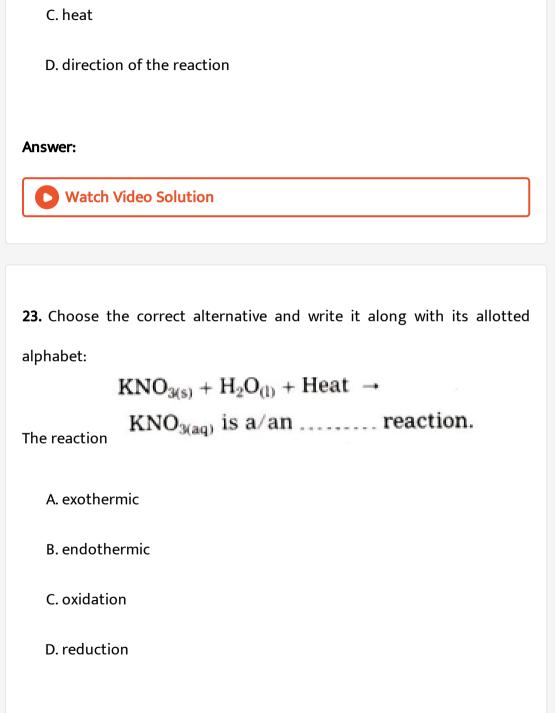


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22. Choose the correct alternative and write it along with its allotted alphabet:

The delta sign written above the arrow indicates of the reaction

A. reactant



B. product

Answer:



24. Choose the correct alternative and write it along with its allotted alphabet:

$$NaOH_{(s)} + H_2O_{(l)} \rightarrow NaOH_{(aq)}$$
 is

is a/ anreaction.

The reaction

- A. exothermic
- B. endothermic
- C. oxidation
- D. reduction

Answer:



25. Choose the correct alternative and write it along with its allotted
alphabet:
A solution of $Al_2(SO_4)_3$ in water is
A. blue
B. pink
C. green
D. colourless
Answer:
Watch Video Solution
26. Choose the correct alternative and write it along with its allotted
alphabet:
Carbon dioxide
A. turns lime water milky

- C. is colourless
- D. All the three (a),(b) and (c) are correct

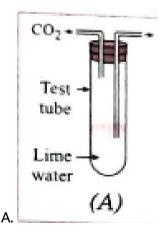
Answer:

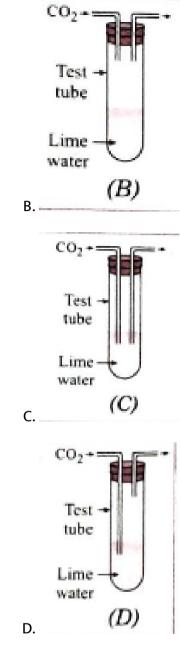


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27. Choose the correct alternative and write it along with its allotted alphabet:

...... is the correct set up to pass CO_2 through lime water.









28. Choose the correct alternative and write it along with its allotted alphabet:

When is passed through fresh lime water, it turns milky.

- A. H 2
- B. CO
- C. CO_2
- D. SO_2

Answer:



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29. Choose the correct alternative and write it along with its allotted alphabet:

Magnesium reacts with con. HCl to form..... salt

A. copper chloride B. ferrous chloride C. calcium chloride D. magnesium chloride **Answer: Watch Video Solution** 30. Choose the correct alternative and write it along with its allotted alphabet: Zinc reacts with hydrochloric acid. The reaction is areaction A. combination B. decomposition C. displacement D. double decomposition

Answer:



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31. Choose the correct alternative and write it along with its allotted alphabet:

In a double displacement reaction......

A. ions remain at rest

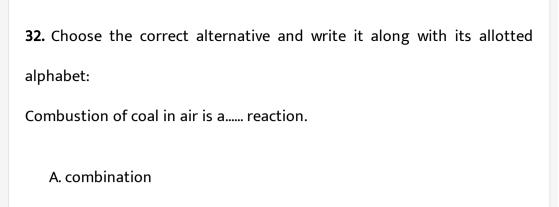
B. ions get liberated

C. ions are exchanged

D. ions are not created

Answer:





B. displacement

C. decomposition

D. double decomposition

Answer:



33. Choose the correct alternative and write it along with its allotted alphabet:

The crystals of ferrous sulphate are.....

A. blue in colour

- B. pink in colour
- C. pale green in colour
- D. colourless

Answer:



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34. Choose the correct alternative and write it along with its allotted alphabet:

Identify the type of following chemical reaction of carbon compound.

$$C_{12}H_{22}O_{11} \xrightarrow{\Delta} 12C + 11H_2O$$

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

Answer:



35. Choose the correct alternative and write it along with its allotted alphabet:

The conversion of ferrous sulphate into ferric sulphate is.....reaction

- A. oxidation
- B. displacement
- C. electrolysis
- D. reduction

Answer:



36. Choose the correct option from the bracket and explain the statement giving reason:

(oxidation, displacement, electrolysis, reduction, zinc, copper, double, displacement, decomposition)

To prevent rusting, a layer of __metal is applied on iron sheets



37. Choose the correct option from the bracket and explain the statement giving reason:

(oxidation, displacement, electrolysis, reduction, zinc, copper, double, displacement, decomposition)

The conversion of ferrous sulphate to ferric sulphate is _____reaction.



38. Choose the correct option from the bracket and explain the statement giving reason:

(oxidation, displacement, electrolysis, reduction, zinc, copper, double, displacement, decomposition)

When electric current is passed through acidulated water _ of water takes



place.

giving reason:

(oxidation, displacement, electrolysis, reduction, zinc, copper, double,

39. Choose the correct option from the bracket and explain the statement

Addition of an aqueous solution of $ZnSO_4$ to an aqueous solution of

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Tractil Trace Serialien

 $BaCl_2$ is an example of reaction

displacement, decomposition)

40. State whether the following statements are true or false.

Rusting of iron is a fast reaction.

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41. State whether the following statements are true or false.

Milk is set into curd is a chemical change.



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42. State whether the following statements are true or false.

The reaction between salt and water is an example of exothermic reaction.



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43. State whether the following statements are true or false.

The speed of a chemical reaction depends on the catalyst used in the chemical reaction



The simple form of representation of a chemical reaction in words is known as word reaction.



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45. State whether the following statements are true or false.

Nascent oxygen is always denoted by showing the symbol of oxygen.



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46. State whether the following statements are true or false.

Antioxidants are used to prevent oxidation of food containing fats and oils.



When oils and fats are allowed to stand for a long time, they become rancid.



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48. State whether the following statements are true or false.

The chemical formula of rust is Fe_3O_4.xH_2O.



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49. State whether the following statements are true or false.

Glucose combines with oxygen in our body and provides energy. The reaction is an endothermic reaction.



Chemical reactions in which reactants gain oxygen are reduction reactions.



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51. State whether the following statements are true or false.

 $CuSO_{4(aq)} + Zn_{(s)} \rightarrow ZnSO_{4(aq)} + Cu_{(s)}$ is an xample

of decomposition reaction.



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52. State whether the following statements are true or false.

The chemical reactions in which heat is liberated are called endothermic reactions.



The product or insoluble solid in chemical reactions is indicated by an arrow ↑ pointing upwards.



54. State whether the following statements are true or false.

The rate of a reaction increases on increasing the temperature..



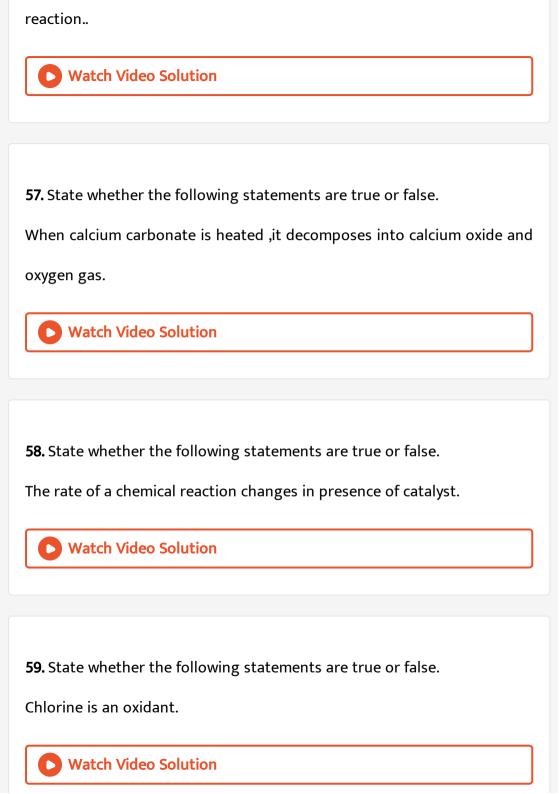
55. State whether the following statements are true or false.

The digestion of food is a chemical decomposition process.



56. State whether the following statements are true or false.

The raction between sodium hydroxide and hydrochloride acid is a slow



60. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following:

 $2H_2 + O_2
ightarrow 2H_2O \colon Comb \in ation reaction \colon \colon 2HgO
ightarrow 2Hg + O_2 \colon \dots \dots$



the second pair. Or complete the following:

 $NH_3 + HCl o NH_4Cl \colon Comb \in ation reaction \colon \colon Fe + CuSO_4 o FeSO_4$

61. Taking into consideration the relationship in the first pair, complete

62. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following: $2C_2H_5OH + 2Na \rightarrow 2C_2H_5ONa + H_2 : O\xi dation reaction : : CuO + H_2 - CuO + CuO + H_2 - CuO + CuO$



63. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following:

 $CuCl_2 + 2KI
ightarrow CuI_2 + 2KCI \colon Doub \leq displacement \colon \colon Zn + 2HCI
ightarrow$



64. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following:

$$C_{12}H_{22}O_{11} \xrightarrow{heat} 12C + 11H_2O : Decomposition_{0}$$

reaction : : $H_2O + CO_2 \rightarrow H_2CO_3 : ...$



65. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following:

 CuI_2 : Brown: : AgCI:



66. Taking into consideration the relationship in the first pair, complete the second pair. Or complete the following:

Molecular formula of beryllium oxide : BeO : Molecular formula of beryllium chloride :



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67. Match the column in the following table

*(1) Reactants	Products	Type of chemical reaction
$BaCl_{2(aq)} + ZnSO_{4(aq)}$	$H_2CO_{3(aq)}$	Displacement
2AgCl _(s)	$FeSO_{4(aq)} + Cu_{(s)}$	Combination
$CuSO_{4(aq)} + Fe_{(s)}$	BaSO ₄ ↓ + ZnCl _{2 (aq)}	Decomposition
$H_2O_{(1)} + CO_{2(g)}$	$2Ag_{(s)}+Cl_{2(g)}$	Double displacement



68. Match the column in the following table

(2) Reactants	Products	Type of chemical reaction
Fe + S	NaCl + H ₂ O	Oxidation
CuSO ₄ + Zn	2CuO	Neutralization
2Cu + O ₂	$ZnSO_4 + Cu$	Displacement
HCl + NaOH	FeS	Combination



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69. Rewrite the second column so as to match the item from first column or match the following :

(1) Column I	Column II
(1) Reduction	(a) Type of chemical reaction
(2) Oxidation	(b) Combination with hydrogen
	(c) Losing hydrogen
	(d) Exchange of ions

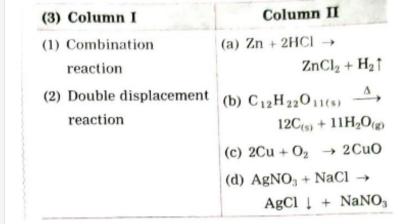


70. Rewrite the second column so as to match the item from first column or match the following :

(2) Column I	Column II
(1) Oils and fats are allowed to stand in air for a long time	(a) Slow reaction
(2) NaOH dissolves in water	(b) Rancid(c) Exothermic reaction(d) Colourless
	solution



71. Rewrite the second column so as to match the item from first column or match the following :





72. Classify each of the following reactions as combination, decomposition, displacement or double displacement reactions :

$$3CaO.Al_2O_{3(s)} + 6H_2O_{(l)} \rightarrow 3CaO.Al_2O_3.6H_2O_{(s)}$$
Tricalcium Water Concrete aluminate + Heat



73. Classify each of the following reactions as combination, decomposition, displacement or double displacement reactions :

$$C_{12}H_{22}O_{11(s)} \xrightarrow{\text{heat } \Delta} 12C_{(s)} + 11H_2O_{(g)}$$
Sugar Carbon



decomposition, displacement or double displacement reactions: $CuSO_{4(aq)} + Fe_{(s)} \rightarrow FeSO_{4(aq)} + Cu_{(s)}$ Ferrous Copper

74. Classify each of the following reactions as combination,

sulphate

Classify each of the following reactions as combination,

iodide



sulphate

75.

chloride

decomposition, displacement or double displacement reactions: $\rightarrow \text{CuI}_2\downarrow + 2\text{KCl}_{(aq)}$ $CuCl_{2(aq)} + 2KI_{(aq)}$ Copper Potassium Potassium Copper chloride

iodide



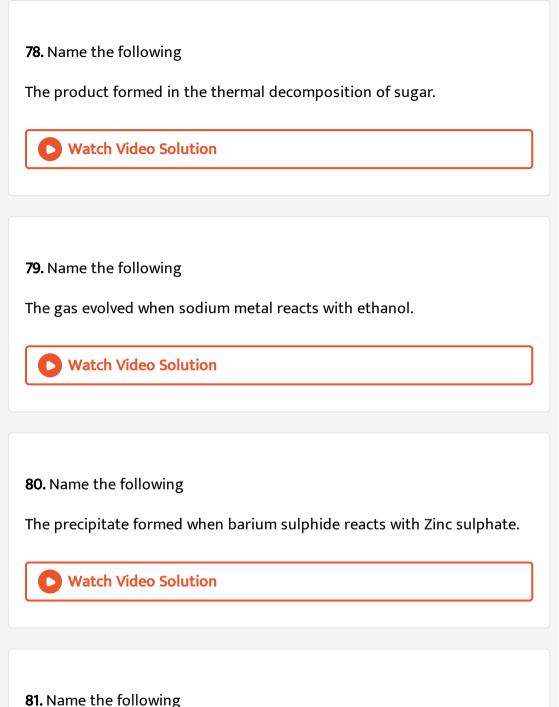
76. Classify each of the following reactions as combination, decomposition, displacement or double displacement reactions :

$$CaO_{(s)}$$
 + $H_2O_{(l)}$ \rightarrow $Ca(OH)_{2(aq)}$
Calcium
oxide hydroxide



77. Classify each of the following reactions as combination, decomposition, displacement or double displacement reactions :





The reducing agent used for the reduction of copper oxide.



82. Name the following

The catalyst used to accelerate the rate of decomposition of hydrogen peroxide.



83. Name the following

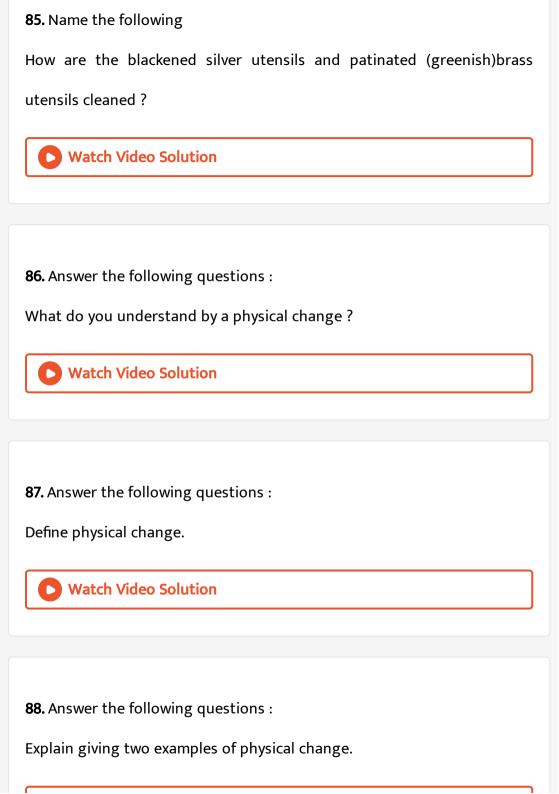
Which oxidising agent is used to oxidise ferrous suphate.

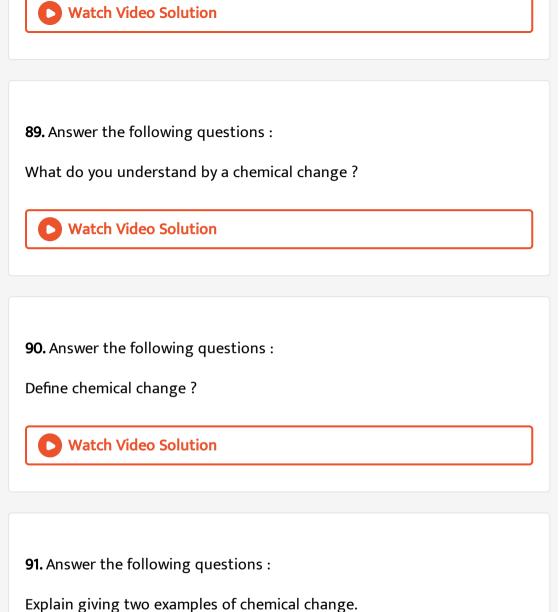


84. Name the following

The product formed in the oxidation of ethyl alcohol.







92. What is a chemical reaction ?
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93. Explain the term reactant and product giving examples.
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94. Answer the following questions :
What is meant by a chemical equation ?
Watch Video Solution
95. Answer the following questions :
What is meant by a word equation?
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96. Write down the physical states of reactants and prooducts in following reaction. $SO_2+2H_2S
ightarrow 3S+2H_2O$



97. Write down the physical states of reactants and prooducts in following reaction. $2Ag_{\,(\,s\,)}\,+2HCI
ightarrow\,2AGCI+H_2$



98. Answer the following questions:

Identify the reactants and products of the following equation:

Vegetable oil₍₁₎ + H_{2(g)} $\xrightarrow[\text{Ni Catalyst}]{60^{\circ}\text{C}}$ Vanaspathi ghee



99. Answer the following questions: What is the importance of a chemical equation? **Watch Video Solution** 100. Answer the following questions: What are the conventions used in writting a chemical equation? **Watch Video Solution** 101. Answer the following questions: Explain the term balanced equation with example. **Watch Video Solution** 102. Answer the following questions: Write the balanced equations for the following reactions:

(i) $H_2S_2O_{7(l)} + H_2O_{(l)} \longrightarrow H_2SO_{4(l)}$



103. Answer the following questions:

Write the balanced equations for the following reactions:

$$SO_{2(g)} + H_2S_{(aq)} \longrightarrow S_{(s)} + H_2O_{(l)}$$



104. Answer the following questions:

Write the balanced equations for the following reactions:

(iii)
$$Ag_{(s)} + HCl_{(l)} \longrightarrow AgCl \downarrow + H_2 \uparrow$$



Write the balanced equations for the following reactions:

$$H_2SO_{4(aq)} + NaOH_{(aq)} \longrightarrow Na_2SO_{4(aq)} + H_2O_{(l)}$$



106. Answer the following questions:

Write the balanced equations for the following reactions:

$$N_{2(g)} + H_{2(g)} \rightleftharpoons NH_{3(g)}$$



107. Answer the following questions:

Write the balanced equations for the following reactions:

(vi) Calcium chloride + Sulphuric acid \rightarrow

Calcium sulphate + Hydrogen chloride.

Write the balanced equations for the following reactions:

(vii)
$$Ba(OH)_2 + HBr \longrightarrow BaBr_2 + H_2O$$



109. Answer the following questions:

Write the balanced equations for the following reactions:

(viii)
$$KCN + H_2SO_4 \longrightarrow K_2SO_4 + HCN$$



110. Answer the following questions:

Write the balanced equations for the following reactions:





111. What are the other uses of silver nitrate in everyday life?



112. Answer the following questions:

What are the different types of chemical reaction?



113. Answer the following questions:

Define: combination reaction.



Define: combination reaction.



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115. Answer the following questions:

Give two examples of combination reaction.



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116. Answer the following questions:

Observe the following reaction carefully and answer the sub-questions:

$$NH_3 + HCI \rightarrow NH_4CI$$

What are the salt and acid in the above reaction?



Observe the following reaction carefully and answer the sub-questions:

 $NH_3 + HCI \rightarrow NH_4CI$

Which is the base in the above reaction? Is it weak or strong?



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118. Answer the following questions:

Observe the following reaction carefully and answer the sub-questions:

 $NH_3 + HCI \rightarrow NH_4CI$

Write a reaction showing dissociation of this base in water.

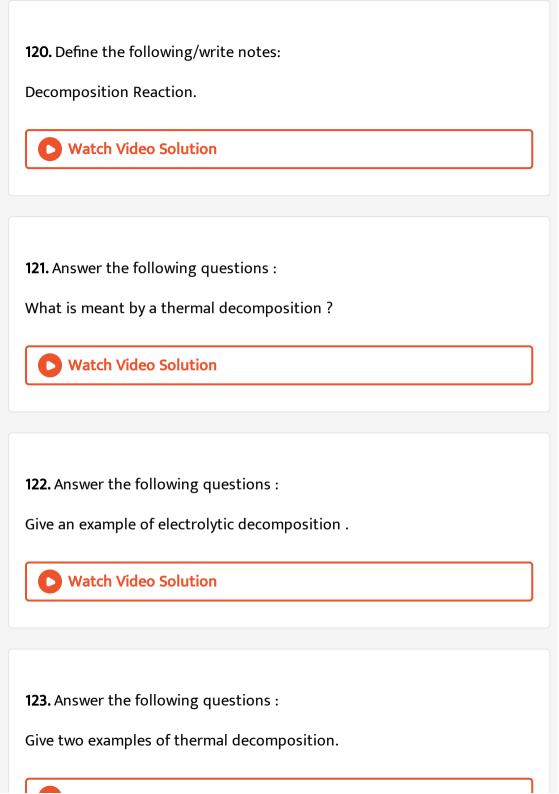


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119. Answer the following questions:

Explain the term combination reaction with examples.







Give an example of electrolytic decomposition .



125. Answer the following questions:

What are the different types of chemical reaction?



126. Answer the following questions:

Study the following reaction and answer the question asked.

$$2H_2O_{(l)} \xrightarrow{Electrical\ energy} 2H_2\uparrow + O_2\uparrow$$

Acidic water

Define this reaction.



- Water video Solution

127. Answer the following questions :

Study the following reaction and answer the question asked.

$$2H_2O_{(l)} \xrightarrow{\text{Electrical energy}} 2H_2\uparrow + O_2\uparrow$$
Acidic water

Define this reaction.

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128. Answer the following questions:

What is meant by a displacement reaction?



129. Answer the following questions:

Give an example of displacement reaction.



Observe the reaction and aswer the following questions.

following questions. $CuSO_{4(aq)} + Fe_{(s)} \rightarrow FeSO_{4(aq)} + Cu_{(s)}$

and write the type of chem

Identify and write the type of chemical reaction.



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131. Answer the following questions:

Complete the given chemical reaction:

 $CuSO_4(aq) + Fe_s
ightarrow +$ Name the type of reaction.



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132. Answer the following questions:

Explain the term displacement reaction with examples.

What is meant by a double displacement reaction?



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134. Answer the following questions:

Give two examples of double displacement reaction?



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135. Answer the following questions:

Write down what you understand from the following chemical reaction:

$$AgNO_{3(aq)} + NaCl_{(aq)} \rightarrow AgCl \downarrow + NaNO_{3(aq)}$$



Study the following chemicl reaction and answer the questions given below:

$$AgNO_{3(aq)} + NaCl_{(aq)} \rightarrow AgCl_{(s)} \downarrow + NaNO_{3(aq)}$$
Precipitate

Identify and write the type of chemical reaction.



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137. Answer the following questions:

Study the following chemical reaction and answer the questions given below:

$$AgNO_{3(aq)} + NaCl_{(aq)} \rightarrow AgCl_{(s)} \downarrow + NaNO_{3(aq)}$$
Precipitate

Write the definition of above type of chemical reaction.



Study the following chemicl reaction and answer the questions given below:

$$AgNO_{3(aq)} + NaCl_{(aq)} \rightarrow AgCl_{(s)} \downarrow + NaNO_{3(aq)}$$
Precipitate

Write the names of reactants and products of above reaction.



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139. Answer the following questions:

When sodium carbonate solution is mixed with barium sulphate solution, a precipate is formed.

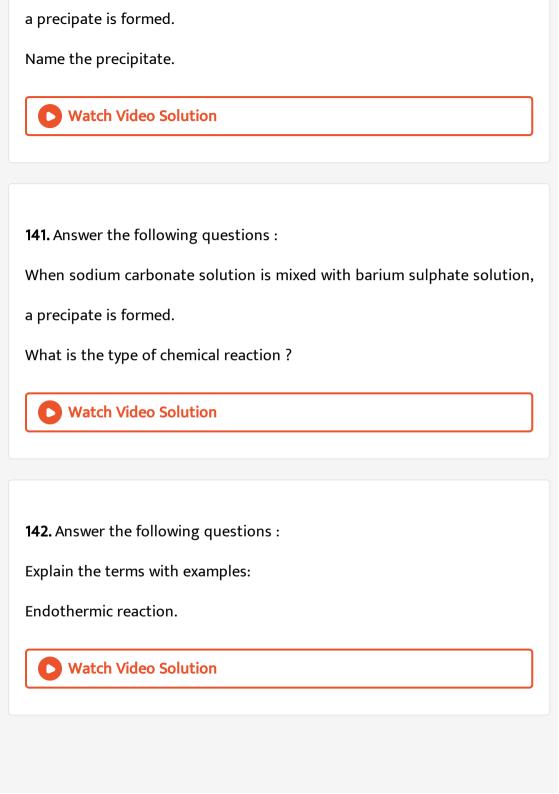
What is the colour of the precipate formed?



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140. Answer the following questions:

When sodium carbonate solution is mixed with barium sulphate solution,



143. Define the following/write notes:

Exothermic Reaction



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144. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

(1)
$$3\text{CaO.Al}_2\text{O}_{3(s)} + 6\text{H}_2\text{O}_{(l)} \rightarrow 3\text{CaO.Al}_2\text{O}_3.6\text{H}_2\text{O}_{(s)}$$

Tricalcium Concrete

aluminate + Heat



145. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

(2)
$$2CaSO_4.H_2O + 3H_2O \rightarrow 2CaSO_4.2H_2O + Heat$$

Plaster of Gypsum

Paris



State whether the following reactions are exothermic or endothermic:



147. Answer the following questions:

State whether the following reactions are exothermic or endothermic:



148. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

Transformation of ice into water.



State whether the following reactions are exothermic or endothermic:

Water turns into ice.



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150. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

Cooking of food



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151. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

Burning candle.



State whether the following reactions are exothermic or endothermic:

- *(9) HCl + NaOH -→ NaCl + H₂O + Heat
 - Watch Video Solution

153. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

*(10) 2KClO_{3(s)}
$$\xrightarrow{\Lambda}$$
 2KCl_(s) + 3O₂ †



154. Answer the following questions:

State whether the following reactions are exothermic or endothermic:

*(11) CaO +
$$H_2O \longrightarrow Ca(OH)_2$$
 + Heat



State whether the following reactions are exothermic or endothermic:





156. Explain the similarity and difference in two events, namely adding

NaOH to water and adding CaO to water

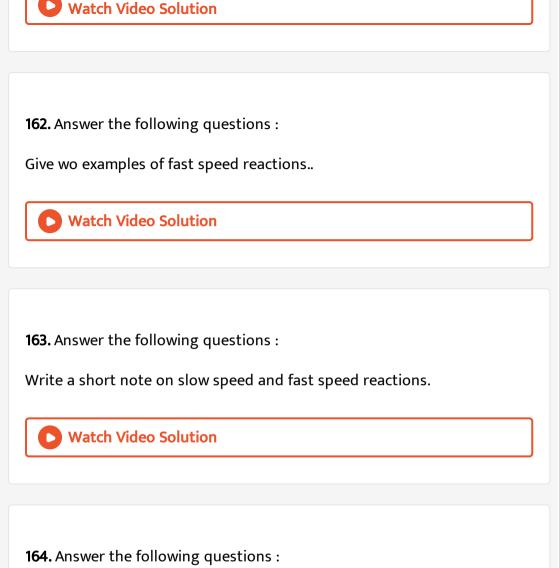


157. Answer the following questions:

What do you mean by slow speed reaction?



158. Answer the following questions: Define Slow speed reaction.. **Watch Video Solution** 159. Answer the following questions: What do you mean by fast speed reaction? **Watch Video Solution 160.** Answer the following questions: Define Fast speed reaction. **Watch Video Solution 161.** Answer the following questions: Give wo examples of slow speed reactions..



State the factors which affect the speed (or rate) of a reaction.

How does the rate of rection depend on the nature of the reactants?

Illustrate with suitable example.



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166. Answer the following questions:

How does the rate of a reaction depend on the size of the particles of reactants?



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167. Answer the following questions:

How does the rate of reaction depend upon the concentration of the reactants? Give suitable example.



How does the rate of a reaction depend upon the temperature of reactants? Give suitable example.



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169. Answer the following questions:

How does the rate of a reaction depend upon the catalyst? Give sitable example.



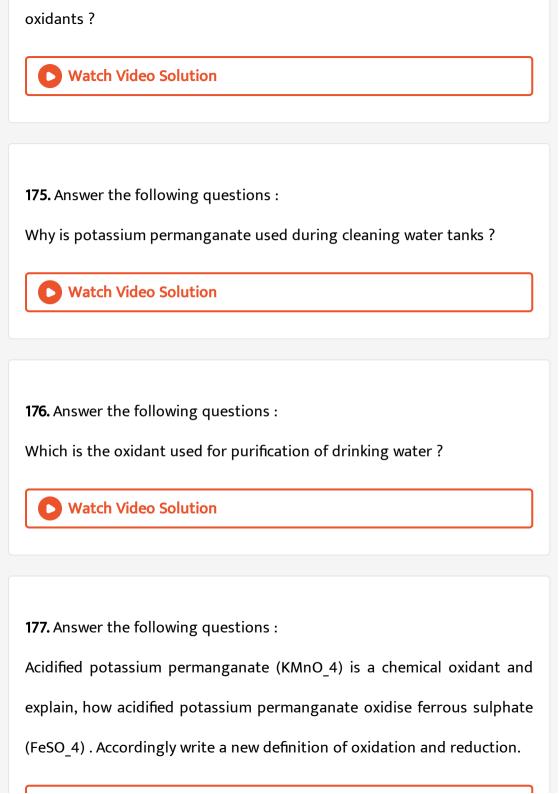
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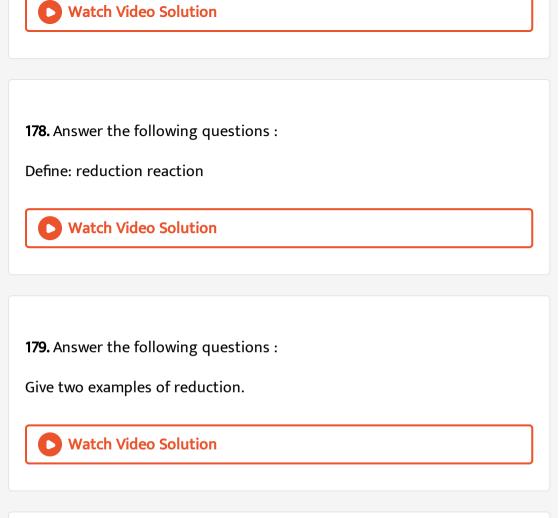
170. Answer the following questions :

State the importance of rate in a chemical reaction.



171. Answer the following questions: Define: Oxidation reaction. **Watch Video Solution** 172. Answer the following questions: Give examples of oxidation. **Watch Video Solution** 173. Answer the following questions: What do you mean by oxidant? Explain with suitable example. **Watch Video Solution** 174. Answer the following questions: Name the various oxidants . How nascent oxygen is liberated from these





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What do you mean by reductant? Explain with suitable example.

181. Explain the types of reaction with reference to oxygen and hydrogen.Illustrate with example

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182. What is the reaction called when oxidation and reduction take place simultaneously? Explain with one example.



183. Answer the following questions :

Explain redox reaction with suitable example.



184. Answer the following questions :

Write note on redox reaction..

What are redox reactions?Identifythe substances that are oxidised and the substances that are reduced in the following reactions.

(1)
$$2H_2S_{(g)} + SO_{2(g)} \rightarrow 3S_{(s)} + 2H_2O_{(l)}$$



186. Answer the following questions:

What are redox reactions?Identifythe substances that are oxidised and the substances that are reduced in the following reactions.

(2)
$$CuO_{(s)} + H_{2(g)} \rightarrow Cu_{(s)} + H_2O_{(l)}$$



What are redox reactions?Identifythe substances that are oxidised and the substances that are reduced in the following reactions.

(3)
$$MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2 \uparrow$$
Manganese Manganese
dioxide chloride



188. Answer the following questions:

Observe the folloswing reaction and answer the questions given below:

de questions given below

$$BaSO_4 + 4C \longrightarrow BaS + 4CO$$

What type of reaction is it? Justify.



Observe the folloswing reaction and answer the questions given below:

$$BaSO_4 + 4C \longrightarrow BaS + 4CO$$

Give one more example.



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190. Answer the following questions:

Identify the following reactions the reactants that undergo oxidation and reduction.

(1)
$$Fe + S \longrightarrow FeS$$



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191. Answer the following questions:

Identify the following reactions the reactants that undergooxidation and

reduction.

(2)
$$2Ag_2O \longrightarrow 4Ag + O_2\uparrow$$



192. Answer the following questions:

Identify the following reactions the reactants that undergo oxidation and reduction.

(3)
$$2Mg + O_2 \longrightarrow 2MgO$$



193. Answer the following questions:

Identify the following reactions the reactants that undergooxidation and reduction.

(4)
$$NiO + H_2 \longrightarrow Ni + H_2O$$

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194. Answer the following questions:

Identify oxidant and reductant from the following reaction:

showing reaction :

$$CuO + H_2 \longrightarrow Cu + H_2O$$



195. Answer the following questions:

Some more examples of redox reaction are as follows. Identify the reductants and oxidants from them.

(1)
$$2H_2S + SO_2 \longrightarrow 3S\downarrow + 2H_2O$$



Some more examples of redox reaction are as follows. Identify the reductants and oxidants from them.

(2)
$$MnO_2 + 4HCl \longrightarrow MnCl_2 + 2H_2O + Cl_2\uparrow$$

Ans. Oxidents : SO Arc



197. Answer the following questions:

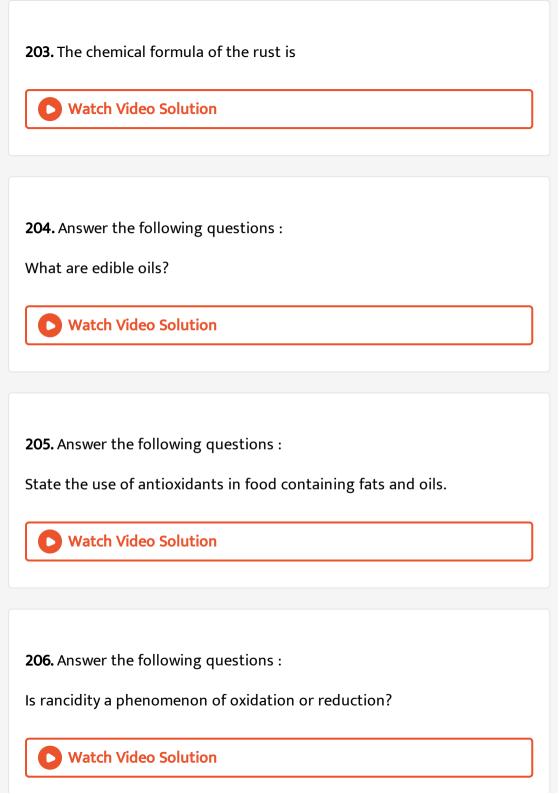
If oxidation means losing electrons. What is meant by reduction.



198. Write the reaction of formation of Fe^2+) by the reduction Fe3+ by making use of the symbol(e)?



199. Define the following :
Corrosion:
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200. Write two conditions necessary for rusting of iron.
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201. How can corrosion of metals be prevented?
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202. What is corrosion? Do gold ornaments corrode? Justify.
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What is the type of this reaction , in which vanaspathi ghee is formed from vegetable oil?



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208. Answer the following questions:

Define Rancidity.



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209. Give scientific reasons

It takes time for pieces of shahabad tiles to disappear in `HCI, but its powder disappears rapidly.



210. Give scientific reasons

Grills of doors and windows are always painted before they are used.



211. Give scientific reasons:

Physical states of reactants and products are mentioned while writing a chemical equation.



212. Give scientififc reasons

When the gas formed on heating limestone is passsed through freshly prepared lime water, the lime water turns milky.



213. Give scientific reasons

While preparing dilute sulphuric acid from concentrated sulphuric acid in the laboratory, the concentrated sulphuric acid is added slowly to water with constant stirring.



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214. Give scientific reasons

It is recommended to use air tight container for storing oil for long time.



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215. Give scientific reasons:

Iron articles rust readly whereas steel which is also mainly made of iron does not undergo corrosion.



216. Give scientific reasons

Concentrated hydrochloric acid reacts rapidly with $CaCO_3$ than dilute hydrochloric acid.



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217. Give scientific reasons:

Zinc powder reacts faster than zinc granules when added to copper sulphate $(CuSO_4)$ solution.



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218. Give scientific reasons:

When copper articles exposed to air for a long time, gets corroded.



219. Give scientific reasons:

When silver vessels exposed to air turns blackish after sometime.



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220. Explain the following reactions giving their balanced chemical equations:

Calcium carbonate (Lime stone) is heated.



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221. Explain the following reactions giving their balanced chemical equations:

Copper reacts with dil. nitric acid.



Copper reacts with conc. nitric acid..



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223. Explain the following reactions giving their balanced chemical equations:

Ammonia gas reacts with hydrogen chloride gas.



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224. Explain the following reactions giving their balanced chemical equations:

Magnesium strip is burnt in air.



Calcium oxide is mixed with water.



226. Explain the following reactions giving their balanced chemical equations:

Sugar is heated.



227. Explain the following reactions giving their balanced chemical equations:

Electric current is passed through acidulated water.



228. Explain what happens when following reactions take place and give the balanced chemical equations. Zinc dust is added to copper sulphate solution.



229. The reaction of iron nail with copper sulphate solution is ______



230. Explain the following reactions giving their balanced chemical equations:

Lead is added to copper sulphate solution.



Potassium chromate solution is added to barium sulphate solution.



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232. Explain the following reactions giving their balanced chemical equations:

Calcium hloride solution is added to sodium carbonate solution..



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233. Explain the following reactions giving their balanced chemical equations:

Sodium chloride solution is mixed with silver nitrate solution..



Dilute sulphuric acid is added to barium chloride solution.



235. Explain the following reactions giving their balanced chemical equations:

Calcium carbonate (Lime stone) is treated with dil.hydrochloric acid..



236. Explain the following reactions giving their balanced chemical equations:

Aluminium is treated with dil. hydrochloric acid.



Magnesium is treated with hydrochloric acid.



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238. Explain the following reactions giving their balanced chemical equations:

Hydrogen peroxide is decomposed in the presence of manganese dioxide (MnO 2).



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239. Explain the following reactions giving their balanced chemical equations:

thyl alcohol is treated with acidified potassium dichromate..



Hydrogen gas is passed over black copper oxide..



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 ${\bf 241.}\ {\bf Identify}\ {\bf A}\ {\bf and}\ {\bf B}\ {\bf from}\ {\bf the}\ {\bf following}\ {\bf table}\ {\bf and}\ {\bf complete}\ {\bf the}\ {\bf table}\ .$

Write the chemical equation.

