CHEMISTRY

BOOKS - ICSE

CHEMICAL CHANGES AND REACTIONS

Exercise 2 A

1. What is a chemical reaction ?

Watch Video Solution

2. State the conditions necessary for a chemical change or reaction to take place.

Watch Video Solution

3. Define the following terms

Chemical change

Watch Video Solution

4. Define the following terms

Chemical bond

Watch Video Solution

5. Define the following terms

Effervescence

 Watch Video Solution

6. Define the following terms

Precipitate

 Watch Video Solution

7. Give an example of a reaction where the following are involved.

Heat

Watch Video Solution

8. Give an example of a reaction where the following are involved

Light

Watch Video Solution

9. Give an example of a reaction where the following are involved

Electricity

Watch Video Solution

10. Give an example of a reaction where the following are involved

Close contact

Watch Video Solution

11. Give an example of a reaction where the following are involved

Solution

Watch Video Solution

12. Give an example of a reaction where the following are involved

Pressure

Watch Video Solution

13. Give an example of a reaction where the following are involved

Catalyst

Watch Video Solution

14. Define :

Photochemical reaction

Give one example.

Watch Video Solution

15. Define :

Electrochemical reaction

Give one example.

Watch Video Solution

16. Give an example of each of the following chemical changes.

A photochemical reaction involving (i) silver salt (ii) water

Watch Video Solution

17. Give an example of each of the following chemical changes.

A reaction involving (i) blue solution (ii) formation of dirty green precipitate

Watch Video Solution

18. Give an example of each of the following chemical changes.

Two gases combine to form a white solid.

Watch Video Solution

19. Give an example of each of the following chemical changes.

Two solids combine to form a liquid.

Watch Video Solution

20. Give an example of each of the following chemical changes.

A reaction where colour change is noticed.

Watch Video Solution

21. Write the chemical reaction where the following changes are observed.

Gas is evolved

Watch Video Solution

22. Give an example of each of the following chemical changes.

A reaction where colour change is noticed.

Watch Video Solution

23. Write the chemical reaction where the following changes are observed.

Precipitate is formed

Watch Video Solution

24. Write the chemical reaction where the following changes are observed.

Physical state of reactants is changed.

Watch Video Solution

25. Give reason for the following:

Silver nitrate solution is kept in coloured bottles.

Watch Video Solution

26. Give reason for the following:

Molybdenum is used in the manufacture of ammonia.

Watch Video Solution

27. Give reason for the following:

Blue solution of copper sulphate changes to green when a piece of iron is added to the solution.

Watch Video Solution

28. Give reason for the following:

Colourless concentrated sulphuric acid in a test tube changes to blue on adding a small piece of copper to it.

Watch Video Solution

Exercise 2 B

1. The chemical change involving iron and hydrochloric acid illustrates a ..... reaction.

Watch Video Solution

2. In the type of reaction called .....two compounds exchange their positive and negative radicals.

Watch Video Solution

3. A catalyst either ..... or ..... the rate of a chemical change but itself remains ..... at the end of the reaction.

Watch Video Solution

4. On heating, hydrated copper sulphate changes its colour from ..... to ..... .

Watch Video Solution

5. When hydrogen burns in oxygen, water is formed, when electricity is passed through water,

hydrogen and oxygen are given out. Name the type of chemical changes involved in the two cases.

Watch Video Solution

6. Explain, giving one example for each of the following chemical changes:

Double decomposition

Watch Video Solution

7. Explain, giving one example for each of the following chemical changes:

Thermal dissociation

Watch Video Solution

8. Explain, giving one example for each of the following chemical changes:

Reversible reaction

Watch Video Solution

9. Explain, giving one example for each of the following chemical changes:

Displacement

Watch Video Solution

10. What is synthesis ?

Watch Video Solution

11. What kind of chemical reaction is synthesis ? Support your answer by an example.

Watch Video Solution

12. Decomposition brought about by heat is known as thermal decomposition. What is the difference between thermal dissociation and thermal decomposition.

Watch Video Solution

13. Define neutralization reaction with an example.

Watch Video Solution

14. Give three applications of neutralization reactions.

Watch Video Solution

15. What do you understand by precipitation reaction ? Explain with an example.

Watch Video Solution

16. What are double displacement reactions ?

Watch Video Solution

17. Give an example of double displacement reaction, where a gas is evolved.

Watch Video Solution

18. What is a decomposition reaction ?

Watch Video Solution

19. Decomposition reactions can occur by (i) heat (ii) electricity and (iii) sunlight.

Give two balanced equations for each.

Watch Video Solution

20. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$Cl_2 + 2KBr \rightarrow 2KCI + Br_2$

Watch Video Solution

21. State the type of reactions each of the following equations represent and balance the

ones that are not balanced.

$NaOH + HCl \rightarrow NaCl + H_2O$

Watch Video Solution

22. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$2HgO \rightarrow 2Hg + O_2$

Watch Video Solution

23. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$Fe + CuSO_4 \rightarrow FeSO_4 + Cu$

Watch Video Solution

24. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$PbO_2 + SO_2 \rightarrow PbSO_4$

Watch Video Solution

25. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$2KClO_3 \rightarrow 2KCl + 3O_2$

Watch Video Solution

26. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$2H_2O_2 \rightarrow 2H_2O + O_2$

Watch Video Solution

27. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$KNO_3 + H_2SO_4 \rightarrow HNO_3 + KHSO_4$

Watch Video Solution

28. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$CuO + H_2 \rightarrow Cu + H_2O$

Watch Video Solution

29. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$CaCO_3 \rightarrow CaO + CO_2$

Watch Video Solution

30. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$NH_4Cl \rightarrow NH_3 + HCI$

Watch Video Solution

31. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$PbO + 2HNO_3 \rightarrow Pb(NO_3)_2 + 2H_2O$

Watch Video Solution

32. State the type of reactions each of the following equations represent and balance the

ones that are not balanced.

$$AgNO_3 + NaCl \rightarrow AgCl + NaNO_3$$

Watch Video Solution

33. Which of the following is not a characteristic of a chemical change?

A. It is irreversible

B. No net energy change is involved

C. New substance is formed

D. Involves absorption or liberation of energy

Answer:

Watch Video Solution

34. A reaction of a type : $AB + CD \rightarrow AD + CD$, involves

A. no chemical change

B. decomposition of AB and CD

C. exchange of ions of AB and CD

D. combination of AB and CD

Answer:

Watch Video Solution

35. The reaction:

$$BaCl_2(aq) + H_2SO_4(aq) \rightarrow BaSO_4(s) + 2HCl(aq)$$

is

A. displacement reaction

B. neutralisation reaction

C. decomposition reaction

D. double displacement reaction

Answer:

Watch Video Solution

36. Thermal decomposition of sodium carbonate will produce

A. carbon dioxide

B. oxygen

C. sodium hydroxide

D. no other product

Answer:

Watch Video Solution

Exercise 2 C

1. What is a chemical change ? Give two examples of chemical change.

Watch Video Solution

2. Why energy is involved in a chemical change ?

Watch Video Solution

3. What do you understand by chemical reaction ?

Watch Video Solution

4. Give an example of a reaction where the following are involved

Evolution of heat

Watch Video Solution

5. Give an example of a reaction where the following are involved

Absorption of heat

Watch Video Solution

6. Give an example of a reaction where the following are involved

Pressure

Watch Video Solution

7. State the main characteristics of chemical reactions. Give at least one example in each case.

Watch Video Solution

8. Give an example of each of the following chemical changes.

A reaction involving (i) change of state (ii) formation of precipitate

Watch Video Solution

9. Give an example of each of the following chemical changes.

An exothermic and an endothermic reaction involving carbon as one of the reactants.

Watch Video Solution

10. Give an example of each of the following chemical changes.

A reaction where colour change is noticed.

Watch Video Solution

11. What do you undestand by exothermic reaction and endothermic reaction? Give one example of each type.

Watch Video Solution

12. State the effects of endothermic and exothermic reactions on the surroundings.

Watch Video Solution

13. Define :

Photochemical reaction

Give one example.

Watch Video Solution

14. Define :

Electrochemical reaction

Give one example.

Watch Video Solution

15. Complete and balance the following reactions :

$NaCl(aq) + AgNO_3(aq) \rightarrow$

Watch Video Solution

16. Complete and balance the following reactions :

$Pb(NO_3)_2 + Kl \rightarrow$

Watch Video Solution

17. Complete and balance the following reactions :

$CuCO_3 \xrightarrow{\Delta}$

Watch Video Solution

18. Complete and balance the following reactions :

$Pb(NO_3)_2 \xrightarrow{\Delta}$

Watch Video Solution

19. Complete and balance the following reactions :

$NH_3 + O_2 \xrightarrow{Pt}$

Watch Video Solution

20. What do you observe when

Lead nitrate is heated.

Watch Video Solution

21. What do you observe when

Silver chloride is exposed to sunlight.

Watch Video Solution

22. What do you observe when

Hydrogen peroxide is exposed to sunlight.

Watch Video Solution

23. What do you observe when

HS gas is passed through copper sulphate

solution.

Watch Video Solution

24. State one relevant observation for each of the following :

Barium chloride solution is slowly added to sodium sulphate solution.

Watch Video Solution

25. What do you observe when

Water is added to quicklime.

Watch Video Solution

26. What do you observe when

Sodium chloride solution is added to silver nitrate solution.

Watch Video Solution

27. Name :

a carbonate which does not decompose on heating.

Watch Video Solution

28. Name :

a nitrate which produces oxygen as the only gas.

Watch Video Solution

29. Name :

a compound which produces carbon dioxide on heating

Watch Video Solution

30. Name :

a nitrate which produces brown gas on heating.

Watch Video Solution

Topic 1 Chemical Reaction Conditions Necessary For A Chemical Change Characteristics Of Chemical Reaction 1 Mark Questions

1. Decomposition rate of hydrogen peroxide gets enhanced in the presence of catalyst _____ $[MnO_2 / CuCl_2]$

Watch Video Solution

Topic 1 Chemical Reaction Conditions Necessary For A Chemical Change Characteristics Of Chemical Reaction 1 Mark Questions

1. Mercuric oxide on heating decomposes to give oxygen and _____ [mercury/mercury oxide]

Watch Video Solution

2. Using carbon dioxide and water, _____ is formed by plants in the presence of sunlight. [galactose/glucose]

Watch Video Solution

3. Lead nitrate solution reacts with potassium iodide solution to give yellow coloured precipitate of ____ $[PbI_2 / PbNO_3]$

Watch Video Solution

4. Nitrogen dioxide turns acidified ferrous sulphate solution ____ [black/brown]

Watch Video Solution

5. The symbol Δ in reaction signifies _____ is responsible for reaction. [heat/light]

Watch Video Solution

6. When a rod dipped in NH_3 solution is brought near the hydrogen chloride, dense white fumes of _____ are formed $[NH_4Cl / NCl_3]$

Watch Video Solution

7. On passing ammonia gas through a copper sulphate solution _____ precipitate is formed. [greenish yellow/ pale blue]

Watch Video Solution

8. Hydrogen sulphide turns lead acetate paper _____[blue/black]

Watch Video Solution

9. The gas which has a rotten egg smell is:

A. Hydrogen sulphide

B. Ammonia

C. Sulphur dioxide

D. Hydrogen chloride

Answer: A

Watch Video Solution

10. The violet crystalline solid is

A. Ammonium chloride

B. Iodine

C. Copper Sulphate

D. Zinc Carbonate

Answer: B

Watch Video Solution

11. Nitrogen dioxide is reduced to nitrogen and oxygen in presence of finely divided :

A. Calcium

B. Potassium

C. Platinum

D. Carbon

Answer: C

Watch Video Solution

12. Colour of PbO is yellow when cold, what is its colour when hot

A. Brown

B. Black

C. Green

D. Purple

Answer: A

Watch Video Solution

13. Name the gas evolved in each of the following cases :

Copper carbonate is heated strongly.

Watch Video Solution

14. Name the gas that is produced in the following case :

Action of dilute hydrochloric acid on sodium sulphide.

Watch Video Solution

15. Name the gas evolved in each of the following cases :

Nitrogen combines with hydrogen.

Watch Video Solution

16. Name the gas evolved in each of the following cases :

Action of dilute sulphuric acid on sodium carbonate.

Watch Video Solution

17. Name the gas evolved in each of the following cases :

Addition of sodium to cold water.

Watch Video Solution

18. Define the term "Promoters".

Watch Video Solution

19. Name the gas evolved in the following case:

Heating potassium chlorate in the presence of manganese dioxide

Watch Video Solution

20. Give reason for the following:

Silver nitrate solution is kept in coloured bottles.

Watch Video Solution

21. Write your observation : When chlorine is passed through the solution of KI.

Watch Video Solution

22. Match the columns :

Column A	Column B
(i) Element react violently with acid	A. Cu
(ii) Element less reactive than hydrogen	B. Na
(iii) Negative catalyst	C. MnO_2
(iv) Positive catalyst	D. Mo
(v) Promoter	E. H_3PO_4

Watch Video Solution

23. Match the columns :

Column A	Column B
(i) Golden yellow	A. Iodine
(ii) Lilac	B. Sodium
(iii) Brick red	C. Copper
(iv) Bluish green	D. Potassium
(v) Violet colour	E. Calcium

Watch Video Solution

24. What is a chemical reaction?

Watch Video Solution

25. State what is observed when hydrochloric acid is added to silver nitrate solution.

Watch Video Solution

26. Write a balanced chemical equation for the following:

Action of heat on calcium bicarbonate

Watch Video Solution

Topic 1 Chemical Reaction Conditions Necessary For A Chemical Change Characteristics Of Chemical Reaction 2 Marks Questions

1. Distinguish on the basis of heating in dry test tube

(i) Copper carbonate and zinc carbonate

Watch Video Solution

2. Distinguish on the basis of heating in dry test tube

Zinc nitrate and copper nitrate

Watch Video Solution

3. Distinguish on the basis of heating in dry test tube

CO_2 and SO_2 (by using a suitable reagent)

Watch Video Solution

4. Write the chemical test to identify the following gases.

NH_3

Watch Video Solution

5. Write the chemical test to identify the following gases.

O_2

Watch Video Solution

6. Write the chemical test to identify the following gases.

SO_2

Watch Video Solution

7. Write the chemical test to identify the following gases.

HCl

Watch Video Solution

8. What do you observe when Water vapours react with cobalt chloride.

Watch Video Solution

9. What do you observe when Ammonia gas is passed through Nessler.s reagent.

Watch Video Solution

10. Give a chemical test to distinguish following gases.

H_2 and O_2

Watch Video Solution

11. Give a chemical test to distinguish following gases.

CO_2 and NO_2

Watch Video Solution

12. Complete the reactions

$NH_3 + O_2 \xrightarrow{\text{Pt}}$

Watch Video Solution

13. Complete and balance the following reactions :

$Pb(NO_3)_2 + Kl \rightarrow$

Watch Video Solution

14. Name the gas that does not affects filter paper dipped in acidified $KMnO_4$

Watch Video Solution

15. Name the gas that turns moist starch iodide paper blue black.

Watch Video Solution

16. Name the gas that decolourises acidified $KMnO_4$ solution.

Watch Video Solution

17. Name the gas that turns colourless $PbNO_3$ solution into black.

Watch Video Solution

18. Write example of most active metal of activity series.

Watch Video Solution

19. Write example of least active non mental of activity series.

Watch Video Solution

20. What do you observe when : Black lead sulphide is heated.

Watch Video Solution

21. What do you observe when : Strong heating of red HgO in test tube.

Watch Video Solution

22. Name the gas evolved in each of the following cases.

Addition of dilute hydrochloric acid to baking soda.

Watch Video Solution

23. Name the gas evolved in each of the following cases.

Addition of caustic soda to ammonium sulphate.

Watch Video Solution

24. Give an example of reaction where Two gases on combination give white solid.

Watch Video Solution

25. Give an example of reaction where Two compounds in solution form gives white precipitate.

Watch Video Solution

26. Name :An alkaline gas .X. which gives dense oxide fumes with HCl.

Watch Video Solution

27. Name : Gas with smell of rotten eggs.

Watch Video Solution

28. Select from the list the gas that matches the description given in each case

[Hydrogen , Nitrogen,Ammonia,Nitrogen dioxide, Chlorine]

A gas which burns in air or oxygen forming water.

Watch Video Solution

29. Select from the list the gas that matches the description given in each case

[Hydrogen , Nitrogen,Ammonia,Nitrogen dioxide,

Chlorine]

A greenish yellow gas that turns moist starch iodide paper blue black.

Watch Video Solution

30. Select from the list the gas that matches the description given in each case

[Hydrogen , Nitrogen,Ammonia,Nitrogen dioxide, Chlorine]

A reddish brown gas liberated on heating lead nitrate crystals.

Watch Video Solution

31. Select from the list the gas that matches the description given in each case

[Hydrogen , Nitrogen,Ammonia,Nitrogen dioxide, Chlorine]

A basic gas which turns red litmus solution blue.

Watch Video Solution

32. Complete the following table which relates to action of heat on substances :

S. No.	Substance heated	Gas evolved	Residue colour
(a)	Zinc Carbonate	(i)	(ii)
(b)	Ammonium dichromate	(i)	(ii)

Watch Video Solution

Topic 1 Chemical Reaction Conditions Necessary For A Chemical Change Characteristics Of Chemical Reaction 3 Marks Questions

1. Name the phenomenon involved : The formation of gas bubbles in a liquid during a reaction.

Watch Video Solution

2. Name the phenomenon involved : A white insoluble substance called silver chloride is formed when a solution of silver nitrate is added to the solution of sodium chloride.

Watch Video Solution

3. Name the phenomenon involved : When electric current is passed through acidulated water, hydrogen and oxygen are formed.

Watch Video Solution

4. Define the Chemical bond

Watch Video Solution

5. Define the Photolysis

Watch Video Solution

6. Define the Electrochemical reaction.

Watch Video Solution

7. Name the gas evolved in each of the following cases

Action of heat on blue vitriol.

Watch Video Solution

8. Name the gas evolved in each of the following cases

Nitrogen dioxide gas is passed through potassium iodide solution.

Watch Video Solution

9. Name the gas evolved in each of the following cases

Action of heat on mercuric oxide.

Watch Video Solution

10. What do you observe when : Nitrogen tetraoxide is heated

Watch Video Solution

11. What do you observe when : Dilute hydrochloric acid reacts with Hg.

Watch Video Solution

12. What do you observe when : SO_2 is passed through acidified $KMnO_4$

Watch Video Solution

13. Name the following gases based on their characteristic : The gas which reacts with hydrochloride gas to form a compound which sublimes on heating.

Watch Video Solution

14. Name the following gases based on their characteristic : The gas produced on decomposition of potassium chlorate.

Watch Video Solution

15. Name the following gases based on their characteristic : Gas which burns with pop sound

Watch Video Solution

16. Provide the following information for blue vitriol.

(i)Chemical name

(ii)Formula

(iii) Identify whether acid, base or salt .

Watch Video Solution

17. What do you observe when $HgCl_2$ and KI rubbed in mortar.

Watch Video Solution

18. What do you observe when H_2S is passed through lead nitrate.

Watch Video Solution

19. What do you observe when CO_2 is passed through $Ca(OH)_2$

Watch Video Solution

20. Write the observations : Ammonia gas is shaken with blue litmus solution

Watch Video Solution

21. Write the observations : HCl gas is shaken with blue litmus solution.

Watch Video Solution

22. Write the observations : Chlorine gas is bubbled through the solution of potassium iodide.

Watch Video Solution

23. Give an example of chemical changes of a reaction involving blue solution.

Watch Video Solution

Topic 1 Chemical Reaction Conditions Necessary For A Chemical Change Characteristics Of Chemical Reaction 5 Marks Questions

1. Give an example of a reaction where the following are involved.

Heat

Watch Video Solution

2. Give an example of a reaction where the following are involved.

Electricity

Watch Video Solution

3. Give an example of a reaction where the following are involved.

Close contact

Watch Video Solution

4. Give an example of a reaction where the following are involved.

Solution

Watch Video Solution

5. Give an example of a reaction where the following are involved

Pressure

Watch Video Solution

6. Name the gas evolved in each of the following cases :Iron sulphide is treated with aqueous sulphuric acid.

Watch Video Solution

7. Name the gas evolved in each of the following cases :Calcium metal is added into water.

Watch Video Solution

8. Name the gas evolved in each of the following cases :Ammonium salt when heated with alkali.

Watch Video Solution

9. Name the gas evolved in each of the following cases :Action of heat on copper nitrate.

Watch Video Solution

10. Name the gas evolved in each of the following cases : Addition of dil. Hydrochloric acid on zinc

metal

Watch Video Solution

11. Write the observations for the following: Reaction between HCl(g) and $NH_3(g)$.

Watch Video Solution

12. Write the observations for the following: Piece of magnesium ribbon is placed over flame.

Watch Video Solution

13. Write the observations for the following: Zinc oxide is heated in a test tube.

Watch Video Solution

14. Write the observations for the following: Dilute sulphuric acid is added to Zinc sulphide.

Watch Video Solution

15. Write the observations for the following: Heating the crystals of pure sodium chloride.

Watch Video Solution

16. Name the gas evolved in each of the following cases : Action of sulphuric acid on magnesium

Watch Video Solution

17. Name the gas evolved in each of the following cases : Action of heat on lead oxide.

Watch Video Solution

18. Name the gas evolved in each of the following cases : Addition of concentrated hydrochloric acid on Pb_3O_4

Watch Video Solution

19. Name the gas evolved in each of the following cases : Addition of concentrated sulphuric acid to sodium chloride.

Watch Video Solution

20. Name the gas evolved in each of the following cases : Zinc sulphide is treated with dilute hydrochloric acid.

Watch Video Solution

21. Define catalyst .

Watch Video Solution

22. Which catalyst are used in following reactions :

$2KClO_3 \rightarrow 2KCl + 3O_2$

Watch Video Solution

23. Which catalyst are used in following reactions :

$4NH_3 + 5O_2 \rightarrow 4NO + 6H_2O$

Watch Video Solution

24. Which catalyst are used in following reactions :

$2H_2O_2 \rightarrow 2H_2O + O_2$

Watch Video Solution

25. Give reasons for the following: Fused calcium chloride is used in desiccators.

Watch Video Solution

Topic 2 Types Of Chemical Change 1 Mark Questions

1. The chemical reaction in which heat is absorbed is known as _____ reaction. [endothermic/exothermic]

Watch Video Solution

2. Chemical change taking place between Fe and HCl is an example of _____ [Displacement/ combination] reaction

Watch Video Solution

3. In _____ reaction, two compounds in their aqueous state exchange their positive and negative radicals mutually to form two new compounds. [Direct combination/double decomposition]

Watch Video Solution

4. _____ solutions turn blue litmus paper red. [Basic Acidic]

Watch Video Solution

5. The formula of green solid chromium oxide obtained on heating orange coloured ammonium dichromate is _____ $[CrO_2 / Cr_2O_3]$

Watch Video Solution

6. The photosynthesis reaction is classified as _____reaction. [Exothermic/Endothermic]

Watch Video Solution

7. Digestion of food in our body exhibits the example of_____ reaction. [dissociation/decomposition]

Watch Video Solution

8. Law of conservation of _____ states that matter can neither be created nor destroyed. [energy/mass]

Watch Video Solution

9. Chlorine is more reactive than _____ [fluorine/iodine]

Watch Video Solution

10. Reaction between copper sulphate and zinc is an example of _____ [displacement/dissociation]

Watch Video Solution

11. Hydrogen peroxide on decomposition gives water and _____ $[O_2 / O]$

Watch Video Solution

12. Proteins on decomposition in our body gives _____ [Amino acids/Acetic acids]

Watch Video Solution

13. Excess hydrochloric acid secreted by stomach glands results in pain and can be relieved by giving milk of magnesia. The above process is an example of _____ reaction [Hydrolysis/ neutralization]

Watch Video Solution

14. After heating washing soda, the colour of residue left behind would be

A. Yellow

B. Black

C. Pink

D. White

Answer: D

Watch Video Solution

15. The salt that undergoes photo chemical decomposition is:

A. Copper sulphate

B. Zinc carbonate

C. lead bromide

D. Silver nitrate

Answer: D

 Watch Video Solution

16. Write down the observation for the following: Hydrogen sulphide gas, is passed through aqueous copper sulphate solution.

 Watch Video Solution

17. Write down the observation for the following: Addition of $BaCl_2$ salt to dilute sulphuric acid.

Watch Video Solution

18. Write down the observation for the following: Reaction of concentrated HCl with Pb_2O_2 when heated.

Watch Video Solution

19. Write down the observation for the following:

Ammonia carbonate is heated.

Watch Video Solution

20. Name the evolved gases in following cases :

Exposure of chlorine water to sunlight.

Watch Video Solution

21. Name the evolved gases in following cases :

Addition of dilute sulphuric acid to sodium

hydrogen sulphite

Watch Video Solution

22. Name the evolved gases in following cases :

Action of heat on calcium carbonate

Watch Video Solution

23. Identify the gas evolved in the following reactions when :

concentrated hydrochloric acid is made to react with manganese dioxide.

Watch Video Solution

24. Name the evolved gases in following cases : Addition of concentrated sulphuric acid to potassium chloride

Watch Video Solution

25. Match the columns :

Column A	Column B
(i) Nessler's reagent	A. Cl_2
(ii) Greenish yellow gas with pungent choking odour	B. H_2
(iii) Gas that burns with pale blue flame	C. $CuCO_3$
(iv) Orange Solid	D. K_2HgI_4
(v) Light green powder	E. $(NH_4)_2Cr_2O_7$

Watch Video Solution

26. Complete the following reaction

$$KCl \xrightarrow{\text{electric current}}$$

Watch Video Solution

27. Identify the type of reaction on the basis of following observations: Addition of dilute hydrochloric acid to silver nitrate solution results in formation of white curdy precipitate.

Watch Video Solution

28. Match the columns :

Column A	Column B
(i) Light green amorphous Powder	A. $CuSO_4.5H_2O$
(ii) White crystalline solid	B. I_2
(iii) Blue crystalline solid	C. $Na_2CO_3.10H_2O$
(iv) Violet crystalline solid	D. $(NH_4)_2Cr_2O_7$
(v) Orange red crystalline solid	E. $CuCO_3$

Watch Video Solution

29. Give reasons for the following: Use of rubbing the area infected with stings of bee with baking soda.

Watch Video Solution

30. Differentiate between the following : Exothermic reaction and Endothermic reaction

Watch Video Solution

Topic 2 Types Of Chemical Change 2 Marks Questions

1. Give the example of Endothermic reaction

Watch Video Solution

2. Give the example of Exothermic reaction

Watch Video Solution

3. Give examples of following reactions Neutralization reaction (ii) Double decomposition

Watch Video Solution

4. Give examples of following reactions Double decomposition

Watch Video Solution

5. Give examples of following reactions Reversible reaction

Watch Video Solution

6. Give examples of following reactions Thermal Dissociation

Watch Video Solution

7. Write the chemical equations showing following reactions : Hydrolysis

Watch Video Solution

8. Write the chemical equations showing following reactions : Precipitation

Watch Video Solution

9. Write the chemical equations showing following reactions : Electrolysis

Watch Video Solution

10. Write the chemical equations showing following reactions : Thermal decomposition

Watch Video Solution

11. Name the gas evolved in each of the following cases

Action of strong heat on potassium nitrate

Watch Video Solution

12. Name the gas evolved in each of the following cases

Action of heat on ammonium chloride

Watch Video Solution

13. Write the thermal decomposition reaction of following compounds

$Pb(OH)_2$

Watch Video Solution

14. Write the thermal decomposition reaction of following compounds

$MgCO_3$

Watch Video Solution

15. Write the thermal decomposition reaction of following compounds

$Ca(HCO_3)_2$

Watch Video Solution

16. Write the thermal decomposition reaction of following compounds

KNO_3

Watch Video Solution

17. Write the photochemical reactions which involves Silver salt

Watch Video Solution

18. Write the photochemical reactions which involves Water

Watch Video Solution

19. Identify the type of reaction

$$NaOH + HCl \rightarrow NaCl + H_2O$$

Watch Video Solution

20. Identify the type of reaction

$$Na_2CO_3 + 2H_2O \rightarrow 2NaOH + H_2CO_3$$

Watch Video Solution

21. Name the gas evolved : Action of dilute sulphuric acid to potassium sulphite.

Watch Video Solution

22. Name the gas evolved when the following mixture is heated :

Calcium hydroxide and ammonium chloride.

Watch Video Solution

23. Name the gas evolved : On Boiling calcium hydrogen carbonate

Watch Video Solution

24. Name the gas evolved : Reaction between lead oxide and ammonia

Watch Video Solution

25. Write the reaction involving : Blue solution of Copper sulphate.

Watch Video Solution

Watch Video Solution

26. Write the reaction involving : Formation of dirty green ppt using iron salt.

Watch Video Solution

27. Give reasons for each of the following

On addition of water to quicklime, along with formation of $Ca(OH)_2$, energy is produced.

Watch Video Solution

28. Give reasons for the following

Chlorine displaces bromine from potassium bromide.

Watch Video Solution

29. Write a balanced chemical equation for each of the following: Reaction of ammonia with oxygen in presence of platinum.

Watch Video Solution

30. Write a balanced chemical equation for the following: Action of dilute sulphuric acid on sodium carbonate.

Watch Video Solution

31. Classify the following reactions as Direct combination, Decomposition, Displacement, Precipitation and Neutralization.

$Fe + CuSO_4 \rightarrow FeSO_4 + Cu$

Watch Video Solution

32. Classify the following reactions as Direct combination, Decomposition, Displacement, Precipitation and Neutralization.

$2Pb(NO_3)_2 \rightarrow 2PbO + 4NO_2 + O_2$

Watch Video Solution

33. Reactions can be classified as follows:

Direct combination, decomposition, simple displacement, double decomposition and neutralisation. State which of the above types takes place in the reactions given below.

$2Mg + O_2 \rightarrow 2MgO$

Watch Video Solution

34. Classify the following reactions as Direct combination, Decomposition, Displacement, Precipitation and Neutralization.

$$Na_2SO_4 + Pb(NO_3)_2 \rightarrow PbSO_4 + 2NaNO_3$$

Watch Video Solution

35. Name - The gas which turns acidified potassium dichromate clear green.

Watch Video Solution

Topic 2 Types Of Chemical Change 3 Marks Questions

1. What kind of chemical reaction is synthesis ? Support your answer by an example.

Watch Video Solution

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

$2Al + Fe_2O_3 \rightarrow Al_2O_3 + 2Fe$

Watch Video Solution

Watch Video Solution

3. Classify each of the following reactions as combination, decomposition, displacement or double displacement: $2KClO_3 \rightarrow 2KCl + 3O_2$

Watch Video Solution

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

$BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + 2NaCl$

Watch Video Solution

5. Mention the type of reactions :

$2HgO \rightarrow 2Hg + O_2$

Watch Video Solution

6. Mention the type of reactions :

$2Cu + O_2 \xrightarrow{\text{heat}} 2CO_2$

View Text Solution

7. Name the type of reactions for the following chemical equations.

$CuO + H_2 \rightarrow Cu + H_2O$

Watch Video Solution

8. Write one similarity and one difference between thermal decomposition & thermal dissociation. Give one examples for each reaction.

Watch Video Solution

9. Give an example of each of the following: Electrochemical reaction

Watch Video Solution

10. Give an example of each of the following: Photochemical reaction

Watch Video Solution

11. Give an example of each of the following: Exothermic reaction involving carbon as one of the

reactants.

Watch Video Solution

12. Name : Gas that supports combustion

Watch Video Solution

13. Name : Gas with crackling sound

Watch Video Solution

14. This gas turns lime water milky.

Watch Video Solution

15. Complete the chemical equations :

$CO_2 + \ldots\ldots \rightarrow C_6H_{12}O_6 + \ldots. + H_2O$

Watch Video Solution

16. Complete the chemical equations :

$CaCO_3 + \ldots\ldots + \ldots\ldots \rightarrow Ca(HCO_3)_2$

Watch Video Solution

17. Complete the chemical equations :

$$CuSO_4 + \ldots\ldots \underset{?}{\overset{?}{\Longleftrightarrow}} CuSO_4.5H_2O$$

Watch Video Solution

18. Identify the type of reactions on the basis of following observations:

Black lead sulphide is heated in presence of O_2 and turns into white lead sulphate.

Watch Video Solution

19. Identify the type of reactions on the basis of following observations:

On heating orange coloured ammonium dichromate, chromium oxide is produced along with nitrogen and water vapour.

Watch Video Solution

20. Identify the type of reactions on the basis of following observations:

In a test tube filled with dilute sulphuric acid, adding small Mg ribbon piece results in brisk effervescence & evolution of hydrogen gas.

Watch Video Solution

21. Give an example of reaction where following are involved: Heat is released

Watch Video Solution

22. Give an example of reaction where following are involved: Heat is absorbed

Watch Video Solution

23. Give an example of reaction where following are involved: Sound energy

Watch Video Solution

24. A gas which turns lead acetate paper black.

Watch Video Solution

25. Name the following:

The gases which mainly contribute for causing acid rain.

Watch Video Solution

26. The gas which rekindles a glowing splinter.

Watch Video Solution

Topic 2 Types Of Chemical Change 5 Marks Questions

1. State the main characteristics of chemical reactions. Give at least one example in each case.

Watch Video Solution

2. What do you observe :

Iodine crystals are heated strongly in a test tube.

Watch Video Solution

3. When iron rod is immersed in copper sulphate solution.

Watch Video Solution

4. What do you observe when

Lead nitrate is heated.

Watch Video Solution

5. State what would you observe when :

The salt ferric chloride is exposed to the atmosphere.

Watch Video Solution

6. What do you observe when : Blue copper sulphate crystals are heated?

Watch Video Solution

7. What do you observe when : Chlorine water is exposed to sunlight.

Watch Video Solution

8. State one relevant observation - Barium chloride solution is slowly added to sodium sulphate solution.

Watch Video Solution

9. What do you observe :

Carbon dioxide is passed through lime water first a

little, then in excess.

Watch Video Solution

10. What do you observe when : Opening the soda water bottle.

Watch Video Solution

11. What do you observe when : Burning sulphur.

Watch Video Solution

12. Complete the reactions :

$Zn(s) + 2HCl(aq) \rightarrow \ldots\ldots + H_2 \uparrow$

Watch Video Solution

13. Complete the reactions :

$KNO_3 + H_2SO_4 \rightarrow \ldots. + KHSO_4$

Watch Video Solution

14. Complete the reactions : `PH_3 + 3AgNO_3 to .....

+ 3HNO_3

Watch Video Solution

15. Complete the reactions :

$CaSO_4 + Na_2CO_3 \rightarrow \ldots\ldots + Na_2SO_4$

Watch Video Solution

16. Complete the reactions :

$(NH_4)_2Cr_2O_7 \xrightarrow{\Delta} \ldots. + N_2 + 4H_2O$

Watch Video Solution

17. Name the gas evolved in each of the following cases : Action of heat on magnesium carbonate.

Watch Video Solution

18. Name the gas evolved in each of the following cases : Action of heat on calcium nitrate.

Watch Video Solution

19. Name the gas evolved in each of the following cases : Addition of dilute sulphuric acid to sodium

sulphite.

Watch Video Solution

20. Name the gas evolved in each of the following cases : Action of heat on washing soda.

Watch Video Solution

21. Name the gas evolved in each of the following cases : Action of dilute hydrochloric acid on zinc sulphide.

Watch Video Solution

22. Name the type of chemical reaction

When hydrogen burns in oxygen water is formed.

Watch Video Solution

23. Name the type of chemical reaction

On passage of electricity, water breaks down to give hydrogen and oxygen.

Watch Video Solution

24. Name the type of reactions for the following chemical equations.

$CuO + H_2 \rightarrow Cu + H_2O$

Watch Video Solution

25. State the type of reactions each of the following equations represent and balance the ones that are not balanced.

$KNO_3 + H_2SO_4 \rightarrow HNO_3 + KHSO_4$

Watch Video Solution

26. Name the type of chemical reaction

$CaO + H_2O \rightarrow Ca(OH)_2$

Watch Video Solution

27. State one relevant observation for each of the following reactions :

Flame test is performed with calcium nitrate.

Watch Video Solution

28. State one relevant observation for each of the following reactions :

Water is added to anhydrous copper sulphate

Watch Video Solution

29. State one relevant observation for each of the following reactions :

Copper carbonate is decomposed on heating.

Watch Video Solution

30. State one relevant observation for each of the following reactions :

Dil. H_2SO_4 is added to zinc sulphide.

Watch Video Solution

31. State one relevant observation for each of the following reactions :

Addition of silver nitrate solution to sodium chloride solution.

Watch Video Solution