

Emmanuel School

Class - 7

Ch-3

Book Page - 38 & 39

*DOB: → CHEMISTRY*

*Page .....*

Fibre to Fabric

## I. Objective Type Questions.

### A. Tick (✓) the correct answer.

- The branch of science which deals with silkworm farming is called:  
a.  Sericulture  
b. Horticulture  
c. Agronomy  
d. Mariculture
- Which of the following is eaten by silkworms?  
a. Fresh mango leaves  
b.  Fresh apple leaves  
c. Fresh banana leaves  
d. Fresh mulberry leaves
- Which of these is not a natural fibre?  
a. Cotton  
b. Jute  
c. Silk  
d.  Nylon
- Which of these are removed by scouring process during wool production?  
a. Grease, dust and oil  
b. Grease, dust and sand  
c.  Grease, dust and dirt  
d. Grease, sand and dirt
- From which of the following, is the silk thread removed?  
a. Eggs  
b. Caterpillar  
c. Pupa  
d.  Cocoon
- A carcinogen:  
a. cocoon  
b. yarn  
c.  formalin  
d. anthrax



**B. State whether the statements are True or False. Correct the false statements.**

1. Fibres obtained from animal sources are known as animal fibres. **True**
2. Cotton is a synthetic fibre. **False (Cotton is natural fibre)**
3. Nylon is a natural fibre. **False (Nylon is a Synthetic Fibre)**
4. Sheep rearing is the branch of animal husbandry. **True**
5. The blunt fibres are removed using a machine. **False**  
*The blunt fibres are removed manually.*

About 6000 silkworms are required to produce about 1 kg of raw silk.

**C. Unscramble the letters to find the answers.**

1. ...**GRADING**..... is breaking up of fleece based on overall quality of the wool.  
**(AGRDNIG)**
2. The filaments are taken out from the cocoons by a process called ...**REELING**.  
**(ERLEING)**
3. In the process of ...**CARDING**..... coloured fibres are combed, straightened and rolled into yarn. **(ACRDING)**
4. Silkworm farming is called ...**SERICULTURE**.....  
**(ESRICLUTUER)**
5. ...**TUSSAR**..... is a variety of silk. **(ATSUSA)**

**D. Fill in the blanks.**

1. Sheep rearing is done to get ...**NATURAL**... fibre.
2. Fibres obtained by chemical treatment are known as ...**SYNTHETIC FIBRE**...
3. Polyester is a ...**Synthetic**... fibre.
4. **Wool production** involves various steps like scouring, grading, dyeing, drying, making of yarn.
5. During sericulture, ...**Carbon dioxide**... gas is produced which is responsible for irritations, allergies, respiratory problems, etc.

**E. Give two examples of each of the following:**

1. Wool-giving camels **Bactrian, Cashmere goat**
2. Goats having best quality wool **Leicester, Cashmere goat, Angora goat**
3. Breeds of Indian sheep **Lohi, Nali**
4. Types of silk **Tassar, Mooga**

**F. Write one word for the following:**

1. The process of removing fleece from the animal **Shearing.**
2. The process of removing dirt from the sheared hair **Scouring**
3. Rearing of silkworms **Sericulture**
4. The pupa stage in a moth's life cycle **Cocoon (Second Stage)**
5. The process of taking out filaments from a cocoon **Reeling/Filature**



11. Short Answer Questions.

① Write a short note on 'Sericulture'.

Ans: → Sericulture is the branch of agriculture industry which deals with silkworm farming for obtaining raw silk.

② What are the harmful effects of the wool industry on human health?

Ans: → The workers are exposed to a large number of chemicals, which adversely affect their health. They might experience allergic problems and respiratory disorders. They get infected by a disease anthrax, which is caused by a bacterium, *Bacillus anthracis*.

③ Discuss the types of natural fibres.

Soln: → Natural fibres are of two types:-

(a) Plant Fibre (b) Animal Fibre

(a) Plant Fibres: → The fibres obtained from plant sources are known as Plant Fibres.

(b) Animal Fibres: → <sup>Ex: → Cotton, hemp, and Jute</sup> The fibres obtained from animal sources are known as Animal Fibre.

Ex: → wool and silk.

④ Compare Natural and Synthetic fibres by giving one example each.

Soln: Natural fibres: → Fibres obtained from natural sources such as plants and animals are known as natural fibres.

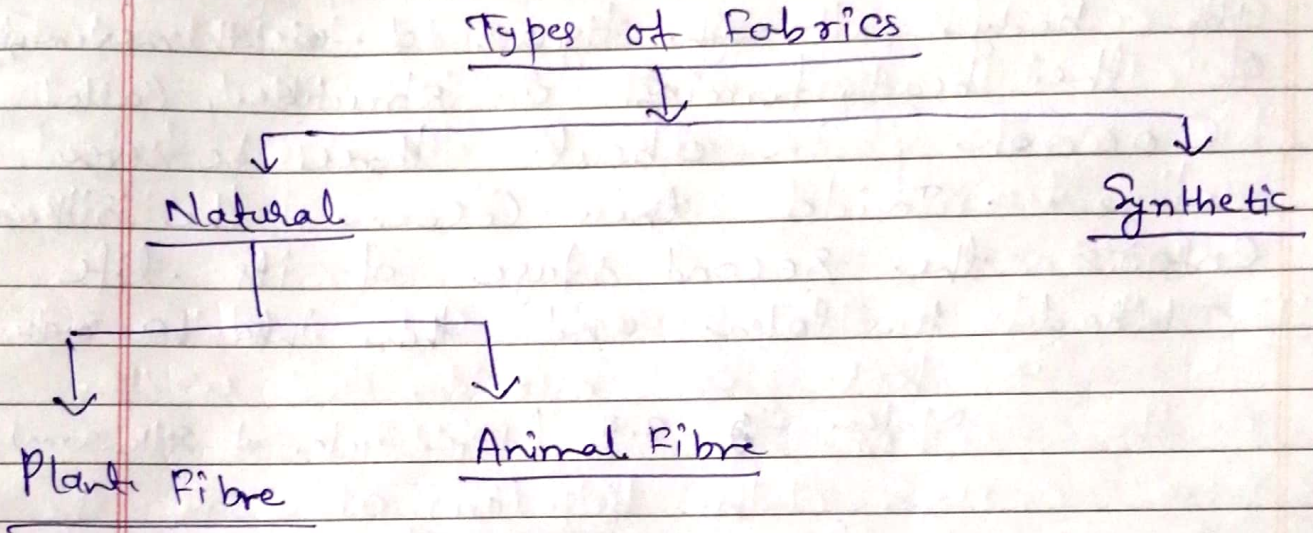
Ex: → wool and cotton.

Synthetic Fibre: → Synthetic Fibres are man-made fibres made from chemicals.

Ex: → Nylon and Polyester

5) what are different types of fibres?

Soln: → Types of Fibres



6) Name some animals from where we get wool.

Soln: → Sheep, Camel and Rabbit are the animals from which we get wool.

III Long Answer Questions

1) Describe the life cycle of silkworm with a well-labelled diagram.

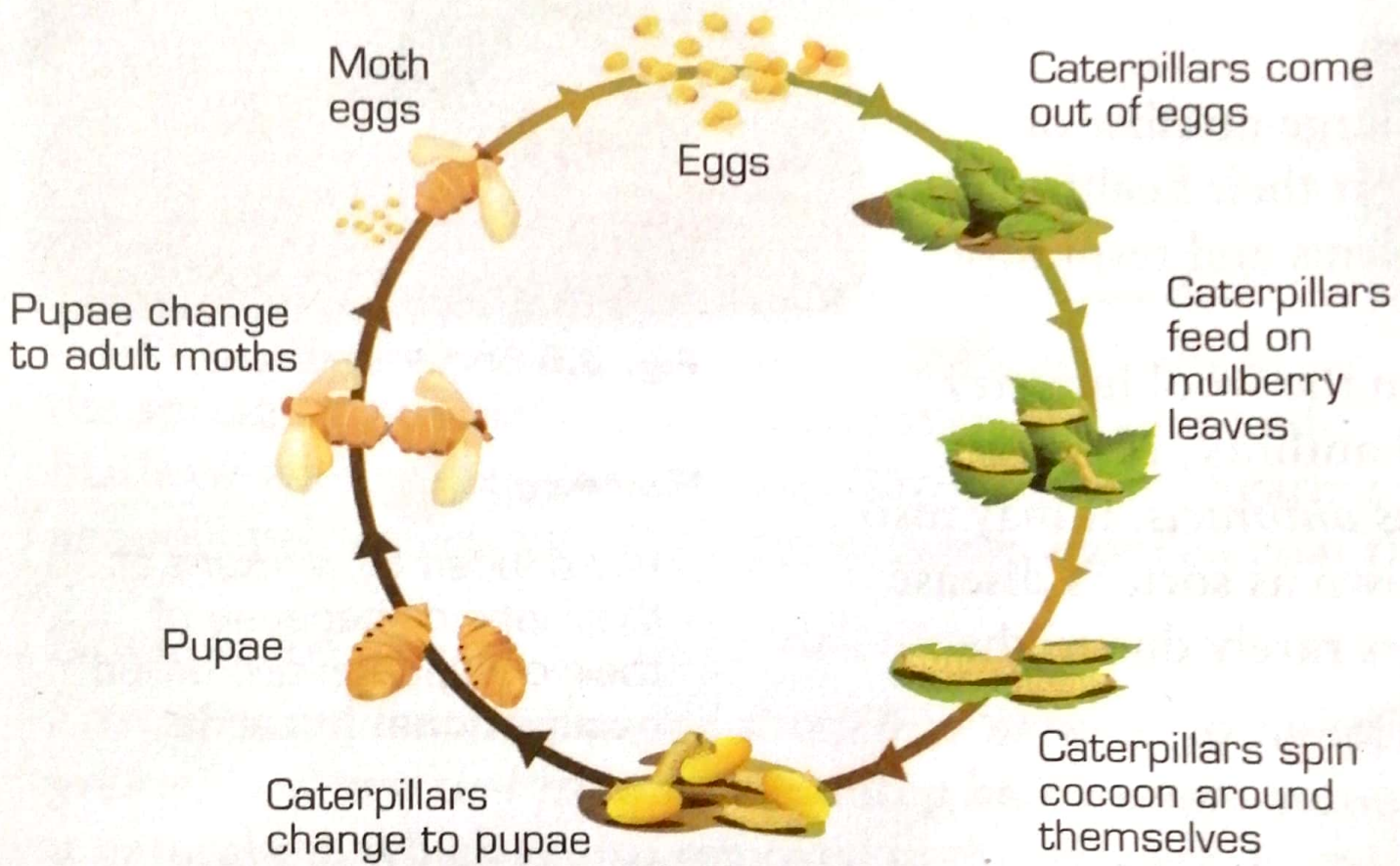
Soln: → The time when a female silk moth lays eggs in the beginning stage of the life cycle of silk and hatches from them to form worms. After about 20 days, the larvae or caterpillars start hatching from these eggs. Then they are known as silkworms or caterpillars. These

(3)

Date .....

Page .....

Silkworms feed on fresh mulberry leaves and grow in size. They secrete fine filaments from two glands on their heads, which is made up of protein that hardens to form silk fibres when exposed to air. The silkworms deposit filaments in a number of concentric layers around its body, through figure-eight movements of the head, forming a structure called cocoon, in about three to seven days. Inside the cocoon, the silkworm enters the second stage of its life called the pupa and then into a moth.



**Fig. 3.7** Life cycle of silkworm



(2) What are the health hazards in sericulture?

Soln: → Sericulture Industry is also connected with lots of chemical substances fatal for human life.

- (i) Handling of dead worms with bare hands contributes to infection and illnesses.
- (ii) Standing almost continuously for about 12-16 hours a day, reeling the fine silk threads, may lead to health disorders like backaches, spine - and vision - related problems.
- (iii) Vapours from boiling cocoons and diesel fumes from machines may lead to respiratory disease such as asthma and bronchitis.
- (iv) During rearing processes, carbon monoxide

Gas (CO) is produced. which is responsible for irritations, allergies, respiratory problems etc.

(iv) Formalin, used during rearing, acts as a Carcinogen. It also causes eye and nasal irritations.

(3) How is wool obtained from sheep? Write down about the steps involved in wool production with explanation.

Soln :-> Animals from which wool can be obtained are bred to obtain wool on large scale. This is called rearing. Wool is present as hair called fleece, on the bodies of animals. The fleece of sheep has two types of fibres. The process of wool involves different steps - rearing, shearing, scouring, sorting, grading and sorting, dyeing and drying and making of yarn.

(i) Shearing :-> The process of removal of the fleece from an animal is called shearing.

(ii) Scouring :-> This is a process of washing of sheep hair in tanks to remove grease, dust and dirt from it.

(iii) Grading and Sorting :-> Grading is the breaking up of the fleece based on overall quality of the wool. 'Fleec' term is used to refer a type of wool that is not processed to make fibres. In sorting, the wool is categorised as per on the basis of length,

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Date .....

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Colour, texture and the ease in which it can be dyed.

(iv) Dyeing and Drying :-> The fibres are then dyed in various colours as per the demand and then dried using rollers to squeeze out as much water as possible.

(v) Making of Yarn :-> After drying, the coloured fibres are combed, straightened and rolled into yarn. This is called carding. This wool fibres after carding are twisted and turned to form yarn in spinning machines.

(vi) Why do people wear Cotton clothes when it is hot and humid, and woolen clothes when it is cold?

Ans :-> Cotton clothes help in absorbing the sweat generated in humid weather, hence keeping us cool. Woolen clothes trap heat and hence keep us warm in winter season.

EMMANUEL SCHOOL

ASSIGNMENT

CH-5

SUB → CH12

CLASS → 07

BY → Ravi BHUSHAN SIR

Book Page → 65 to 67

PHYSICAL AND CHEMICAL CHANGE

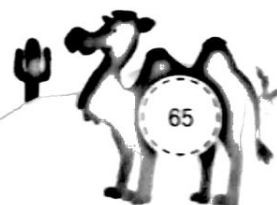


**What Have I Learnt**

**I. Objective Type Questions.**

**A. Tick (✓) the correct answer.**

- Melting of butter is which kind of change?  
 a. Physical  
 b. Chemical  
 c. Both a and b  
 d. Neither a nor b
- Which of these chemical reactions involve the replacement of an element or ion from one compound to another?  
 a. Double displacement reaction  
 b. Single displacement reaction  
 c. Oxidation-reduction reaction  
 d. Decomposition reaction
- Two or more reactants combine to form a new product in:  
 a. Exothermic reaction  
 b. Single displacement reaction  
 c. Combination reaction  
 d. Decomposition reaction
- During exothermic chemical reactions, heat is:  
 a. Released  
 b. Absorbed  
 c. No effect  
 d. First absorbed and then released



5. Rusting of iron can be prevented by:
  - a. Galvanisation
  - b. Absorption
  - c. Forming precipitate
  - d. Reacting it with water
6. Carbon reacting with sulphur to give carbon disulphide while absorbing heat is an example of:
  - a. exothermic reaction
  - b. precipitation reaction
  - c. oxidation reaction
  - d. endothermic reaction

7. When magnesium reacts with oxygen to form magnesium oxide, it is a type of:
  - a. Decomposition reaction
  - b. Double displacement reaction
  - c. Combination reaction
  - d. Precipitation reaction
8. In a chemical reaction, if a liquid turns into gas, then it is a:
  - a. Change in state
  - b. Change in energy
  - c. Endothermic reaction
  - d. Formation of precipitate

**B. State whether the following statements are True or False. Correct the false statements.**

1. A chemical reaction is the symbolic representation of a chemical equation. False.
2. Matter exists in three forms—solid, liquid and gas. True
3. In a single displacement reaction, one compound displaces another compound. False
4. In a precipitation reaction, an insoluble substance is formed by mixing two solutions. True
5. Change in colour is a kind of physical change. False
6. Forming of a precipitate is a chemical change. True

**C. Unscramble the letters to find the answers.**

1. The method used to prevent rusting (**NILANGGAVSI**) GALVANISATION
2. The chemical reaction in which heat is released (**EROCHMITXE**) EXOTHERMIC
3. The chemical reaction in which heat is absorbed (**OTHNEREMCID**) ENDOTHERMIC
4. The chemical reaction in which a compound breaks down into two or more components due to breaking of bonds. (**MOPOCSIDIENO**) DECOMPOSITION
5. The word which is also used to denote an oxidation-reduction reaction (**OEXDR**) REDOX
6. A change where no new substance is formed (**YIHPSCLA**) PHYSICAL
7. A change where there is a change of energy (**MHELICAC**) CHEMICAL
8. An insoluble substance formed when two solutions react (**TPECRIITPAE**) PRECIPITATE



D. Fill in the blanks.

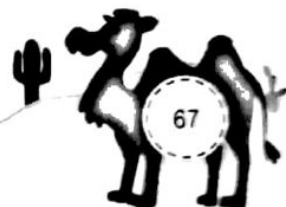
1. In a **Combination** reaction two or more reactants combine to form a new product.
2. An **oxidation and reduction** reaction is also known as redox reaction.
3. Evaporation is used to separate a solid solute from a **Solvent**.
4. When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as **Double Displacement Reaction**.
5. When iron nails are dipped in copper sulphate solution, a green-coloured **Iron Sulphate** solution is formed.
6. When magnesium reacts with oxygen, it produces **Magnesium oxide**.
7. When carbon reacts with oxygen to form carbon dioxide heat is **released**.
8. Heat is absorbed in **Endothermic** reaction.

II. Short Answer Questions.

1. What is a precipitation reaction?
2. Explain the change in state with one example.
3. What are endothermic reactions?
4. Give an example of an oxidation-reduction reaction.
5. Is crystallisation a physical change or a chemical change? Why?

III. Long Answer Questions.

1. Differentiate between physical and chemical reactions. Explain with examples.
2. What are endothermic and exothermic chemical reactions? Give one example each to support your answer.
3. Briefly explain the different types of chemical reactions.
4. Briefly explain the characteristics of chemical changes.
5. Give two examples each for explaining change in state and change in colour during a chemical reaction.
6. Explain displacement and double displacement reactions using examples.
7. What are the two methods of separating a solid from a liquid?
8. Melting of wax is a physical change, whereas burning of wax is a chemical change. Why?
9. Conversion of organic matter into biogas is a chemical change. Explain why.



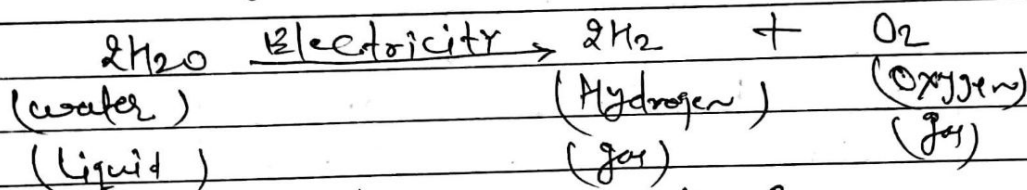
Short Answer Question

① What is a precipitation reaction?

Sol<sup>n</sup> :-> When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as precipitate and the reaction is thus known as precipitation reaction.

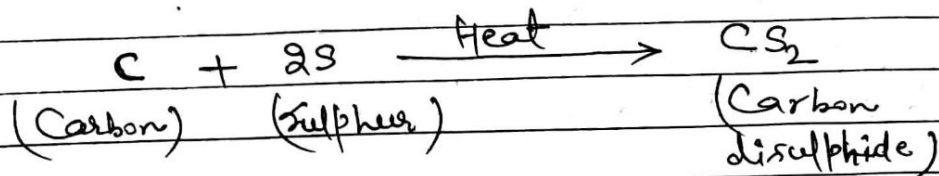
② Explain the change in state with one example.

Sol<sup>n</sup> :-> When electricity is passed through water, it produces hydrogen and oxygen gases. Here liquids turns into a gaseous state.



③ What are Endothermic reactions?

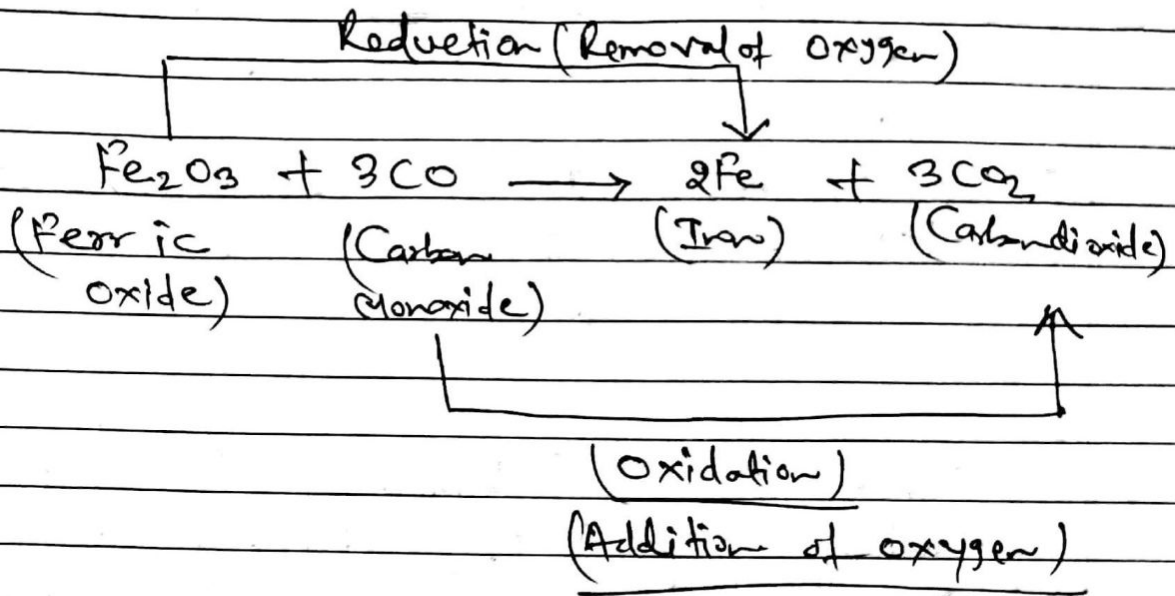
Sol<sup>n</sup> :-> The chemical reactions or changes in which heat is absorbed called Endothermic reactions.



④ Give an example of an oxidation-reduction reaction.

Sol<sup>n</sup> :-> When ferric oxide reacts with carbon monoxide, ferric oxide is reduced into iron and carbon monoxide is oxidised.

into Carbon dioxide.



In Crystallisation a physical change or a chemical change? Why?

∴ → Crystallisation is a physical change. In this process solvent evaporates, the saturated solution is left behind. In this process no chemical reaction takes place.

Long Answer questions

Differentiate between physical and chemical reactions. Explain with Examples.

<u>PHYSICAL CHANGE</u>	<u>CHEMICAL CHANGE</u>
It is a change in which no new substance is formed.	① It is a change in which a new substance is formed.
It is a change in which only physical state of a substance is changed.	② It is a change in which chemical properties of substance change.

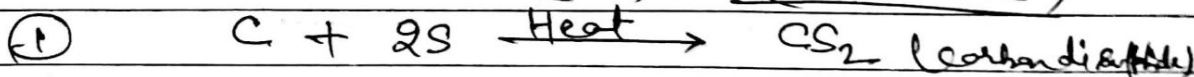
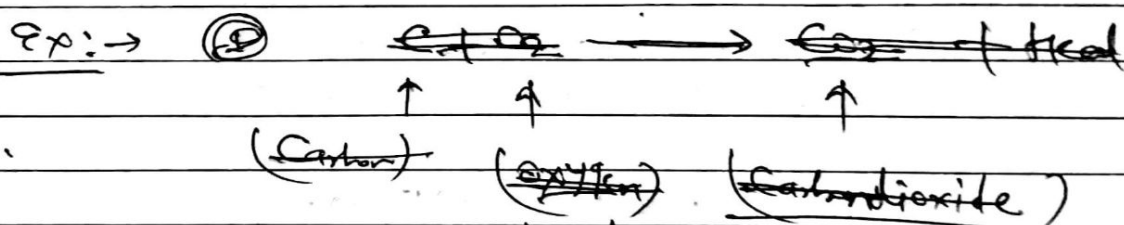


Physical change	Chemical change
(3) The change can be reversible or Irreversible	(3) The change are mostly Irreversible
(4) These change are mostly temporary	(4) The change are mostly permanent.

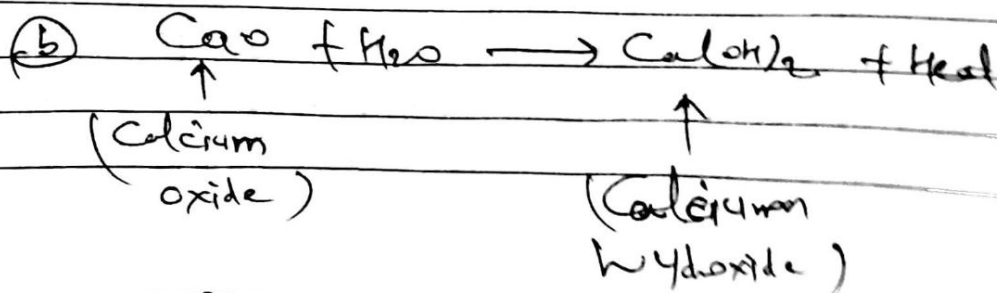
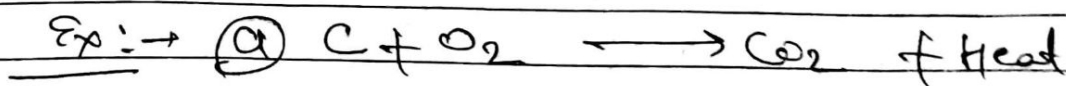
(2) What are endothermic and exothermic chemical reactions? Give one example

Soln :-> Endothermic Reaction :-> The chemical

reaction or change in which heat is absorbed during the reaction are called Endothermic reaction.



Exothermic Reaction :-> The chemical reaction or change in which heat is released is called Exothermic reaction.

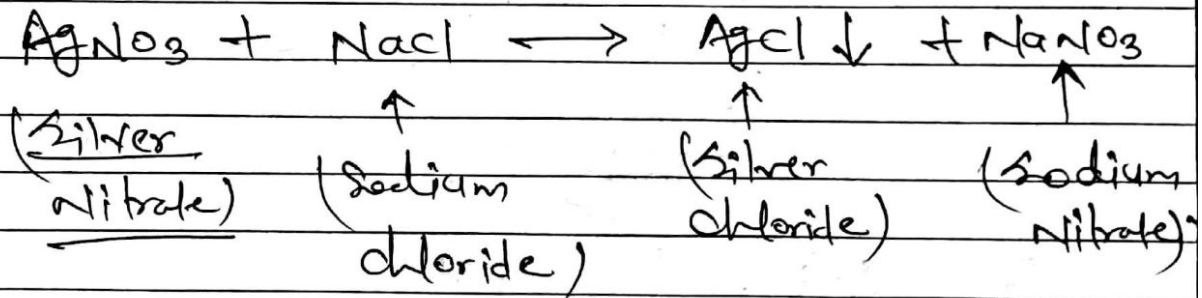


Briefly Explain the different types of Chemical reactions.

Different types of Chemical Reaction  
Written below:

Precipitation Reaction :-> When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as precipitate and the reaction is then known as precipitation reaction.

Ex: -> (1) When silver nitrate is added to sodium chloride, a precipitate of silver chloride is formed.

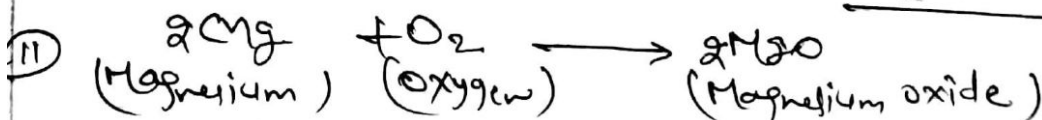
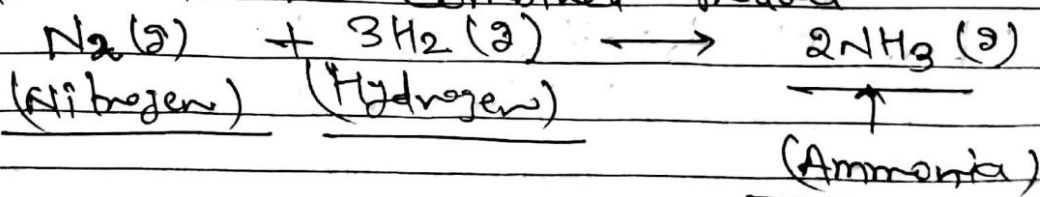


Combination Reaction :-> In a

Combination reaction (or synthesis reaction), two or more reactants combine to form a new product.



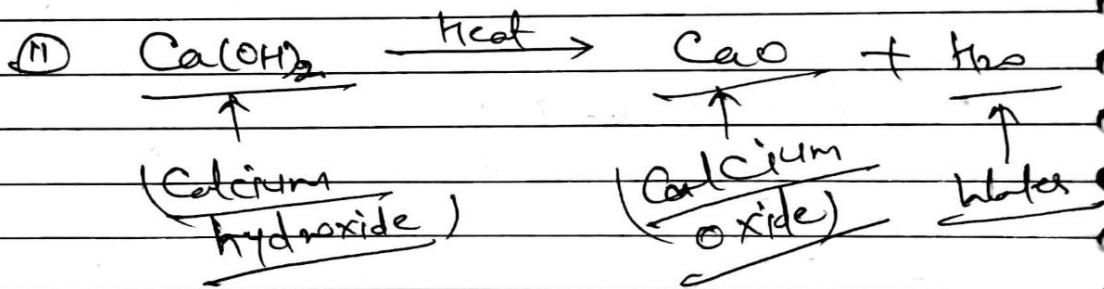
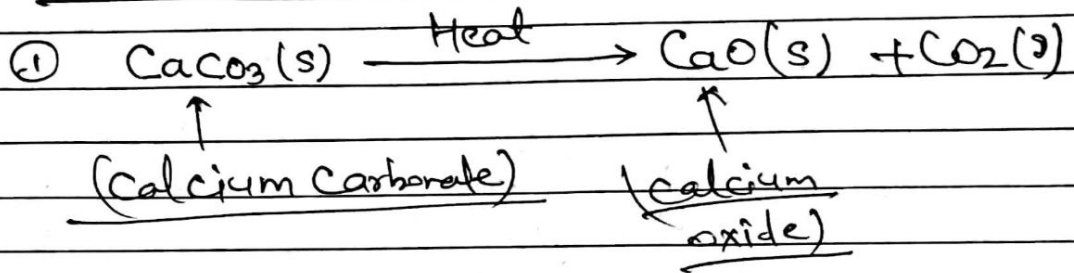
Here A and B are reactants and AB is the combined product.



③ DeComposition Reaction → In a

decomposition reaction, a Compound breaks into two or more Components due to the breaking of bonds. It happens due to the action of light, heat and Electricity.

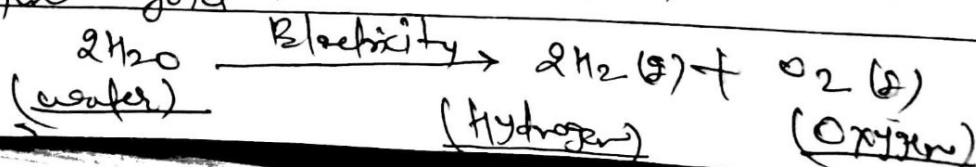
① Action of Heat



② Action of Light

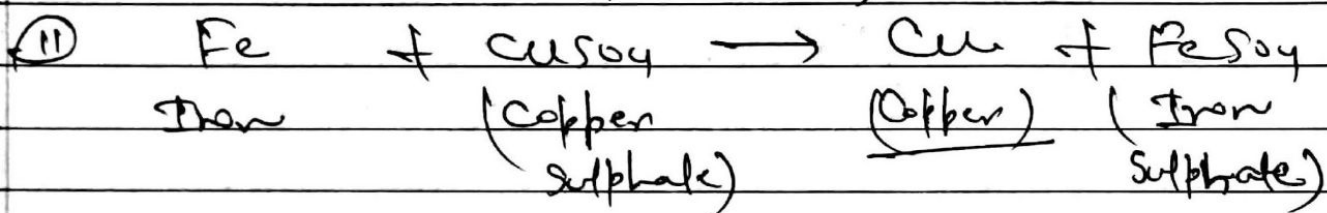
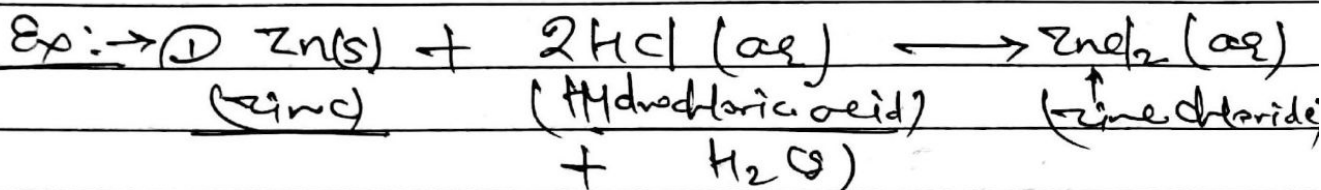
③ Action of Electricity

When Electricity is passed through water, it produces Hydrogen and oxygen gas.



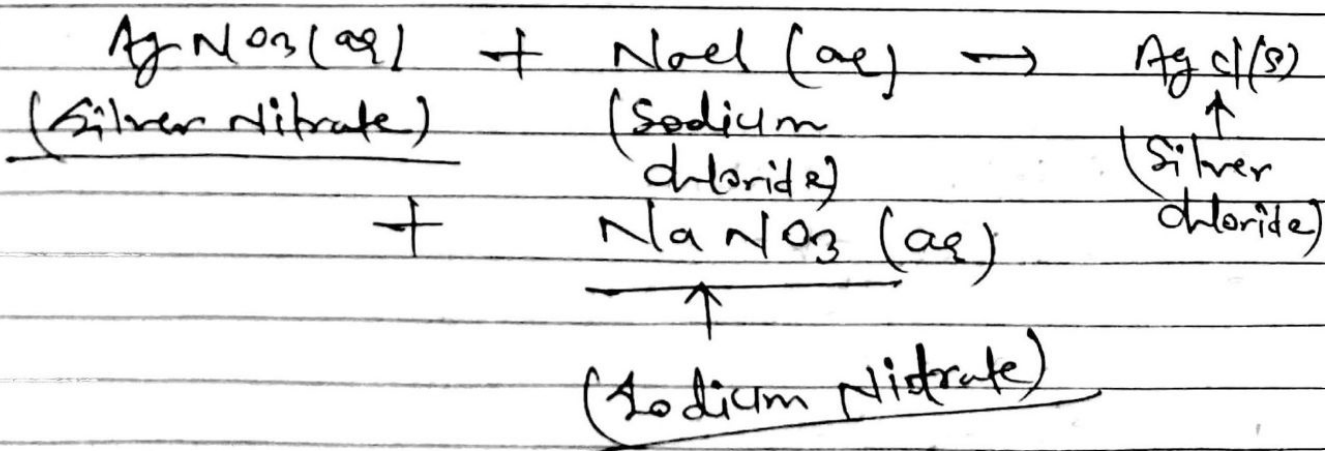
④ Single Displacement Reaction :->

Single displacement reaction is a reaction in which a more reactive element displaces a less reactive element from its salt solution.



Double Displacement Reaction :->

In double displacement reaction, positive ion and negative ion switch their positions and form new products.



Oxidation-Reduction Reaction :->

Oxidation reaction :-> Oxidation

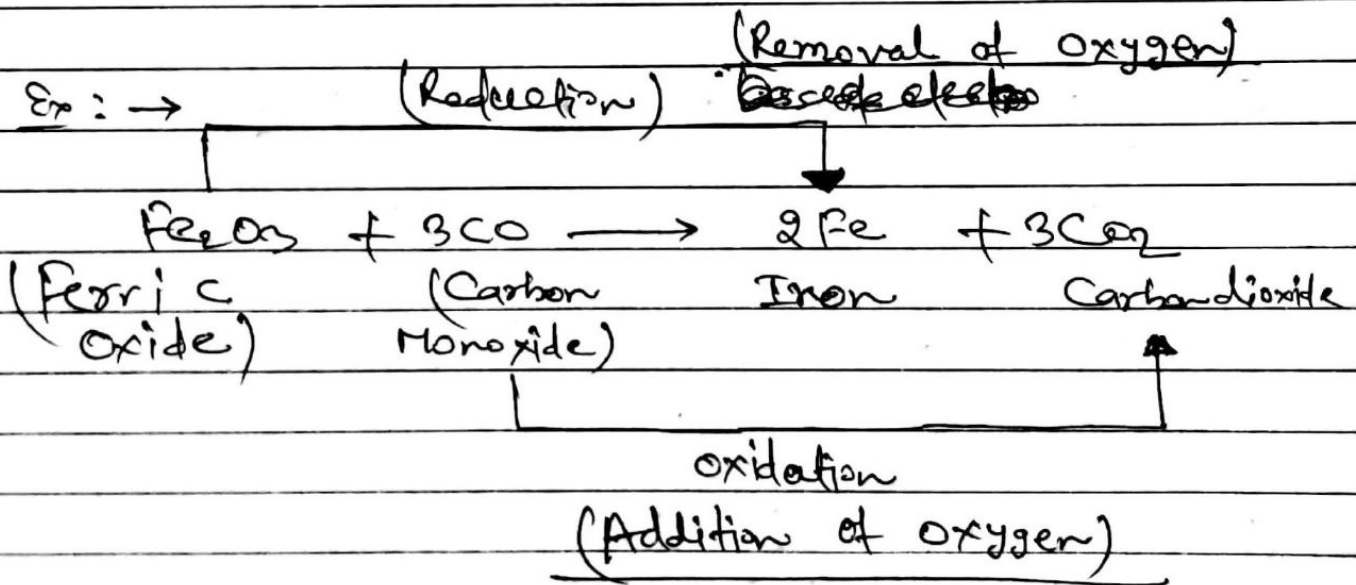
which following process takes place

- (I) Loss of electrons
- (II) Addition of oxygen
- (III) Removal of hydrogen

Reduction Reaction :  $\rightarrow$  'Reduction Reaction'

are that process in which following process takes place.

- (I) gain of electrons
- (II) Addition of hydrogen
- (III) Removal of oxygen



Q) Briefly explain the characteristics of chemical changes

Soln:  $\rightarrow$  The following are some characteristics of chemical changes.

(1) change in colour :  $\rightarrow$  following chemical reaction represent change in colour.

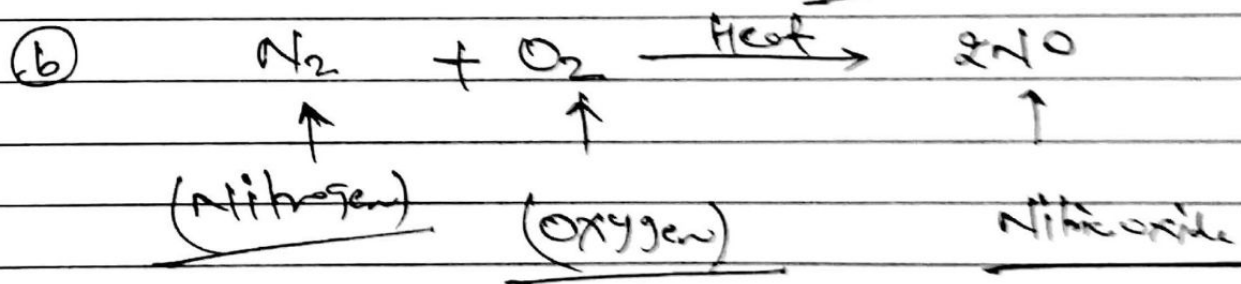
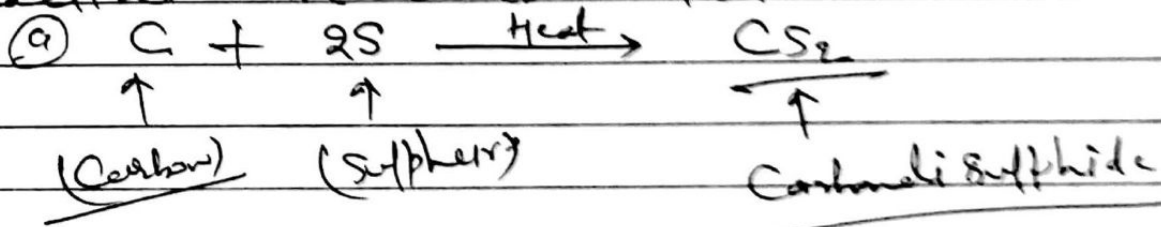
(1) Changing of colour of an apple when kept in the open is an example of a chemical reaction.

~~Change in Energy~~ it is added to dilute Sodium hydroxide, the solution turns pink.

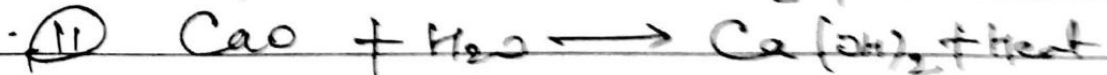
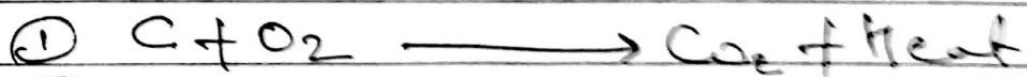
Change in Energy :→ Endothermic and Exothermic reaction

represent change of Energy.

Endothermic reaction :→ Such type of reaction in which Heat is absorbed.



Exothermic reaction :→ The reaction in which Heat is released is called Exothermic reaction.



EMMANUEL SCHOOL

BIOLOGY ASSIGMENT NO-04

With answer

CH-10(RESPIRATION)

BY- Rites srivastava

Fill in the black

Q1. We can not , survive without .....,

Q2. We respire by using ..... And .....

Q3. The presence of ..... gas is essential in the atmosphere for respiration.

Q4. We take in ..... and give out ..... during breathing.

Q5. .... help us breathing

Q6. Exchange of gases in the leaves take place with the help of .....

Q7. Diaphragm forms the ..... Of the chest cavity.

Q8. Respiration is process the provides ..... to the body.

Match the following

Colum I

colum II

a). Butter fly

i). lungs

b). Earth warm

ii). Gills

c). Sparrow

iii). Spiracles

d). Fish

iv) Skin

Short question answer.

Q1. What is respiration?

Q2. What is anaerobic respiration?

- Q3. Where is diaphragm located in human body?
- Q4. Name respiratory organ of frog.
- Q5. Name the respiratory organ of earthworm.
- Q6. How does exchange of gases take place in insects?
- Q7. Name the respiratory organ of bird.
- Q8. What is the end product of anaerobic respiration?
- Q9. Why do we respire?
- Q10. Why we should eat regularly?

### Long question answer

- Q1. What happens to the air we breathe in ?
- Q2. Differentiate between aerobic and anaerobic respiration.
- Q3. Why we feel hungry after a physical activity?

### Activity;

- Q1. Draw a labelled diagram show inhalation and exhalation process in human beings.
- Q2. Draw a labelled diagram of insects tracheal system.

### Answer of above assignment:

### Fill in the blanks ..

### A/s

- Q1. Respiration
- Q2. Mouth and nose
- Q3. Oxygen
- Q4. Oxygen and carbon dioxide



Q5.lungs

Q6. Stomata

Q7.Floor

Q8. Energy

A/s of match of the following:

Q1.a spiracles

.b skin

.c lungs

.d gills

A/s of short q/a

Q1. The process of oxidation of food to release energy from absorb food in living cell

Q2. The respiration which takes places in the absence of oxygen is called anaerobic

Q3. Below the lungs.

Q4. Skin and lungs

Q5. Moist skin

Q6. Exchange gas take place in insect through spiracles into trachea.

Q7. Lungs

Q8. Co<sub>2</sub>, alcohol , and energy

Q9. We respire to use the oxygen , to oxidise our food and release energy . this is similar like burning but a slower process it also need respiratory enzymes . respiration is a slower process than burning and energy release can be stored for later use

$C_6H_{12}O_6 + O_2 \rightarrow H_2O + CO_2 + \text{energy}$

Q10. The food has stored energy which is released during respiration thus we should eat regularly

### A/s of long Q/a

Q1. The air we breath in transported to every parts of body and ultimately it is transported to each cell , in the cells oxygen in the air help in the breakdown of food this process of breakdown of food in the cell with the release of energy is called cellular respiration .

Q2 . The air we breath in transported to every parts of body and ultimately it is transported to each cell , in the cells oxygen in the air help in the breakdown of food this process of breakdown of food in the cell with the release of energy is called cellular respiration .  
cellular respiration take place / occurs in the cell of all organism.

Q3.	Aerobic respiration	Anaerobic respiration
1. An aerobic respiration takes place Using o <sub>2</sub> ,inhales in breathing .		1. Where an anaerobic r -espiration requires
2. In aerobic respiration ,breathing of Glucose result in production of co <sub>2</sub> ,water and energy		no o <sub>2</sub> 2.in aerobic respiration t -he breakdown of gulco
3. An aerobic respiration uses respiratory Organs such as lungs		-se first result in lactic acid and energy and This break into co <sub>2</sub> , h <sub>2</sub> o
		3.aerobic respiration take pla -ce at cellular or muscular Leve

By- Ritesh srivastava

EMMANUEL SCHOOL

BIOLOGY ASSIGMENT NO-04

With answer

CH-10(RESPIRATION)

BY- Rites srivastava

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- Q1. What happens to the air we breathe in ?
- Q2. Differentiate between aerobic and anaerobic respiration.
- Q3. Why we feel hungry after a physical activity?

### Activity;

- Q1. Draw a labelled diagram show inhalation and exhalation process in human beings.
- Q2. Draw a labelled diagram of insects tracheal system.

### Answer of above assignment:

### Fill in the blanks ..

### A/s

- Q1. Respiration
- Q2. Mouth and nose
- Q3. Oxygen
- Q4. Oxygen and carbon dioxide

Q5.lungs

Q6. Stomata

Q7.Floor

Q8. Energy

A/s of match of the following:

Q1.a spiracles

.b skin

.c lungs

.d gills

A/s of short q/a

Q1. The process of oxidation of food to release energy from absorb food in living cell

Q2. The respiration which takes places in the absence of oxygen is called anaerobic

Q3. Below the lungs.

Q4. Skin and lungs

Q5. Moist skin

Q6. Exchange gas take place in insect through spiracles into trachea.

Q7. Lungs

Q8. Co<sub>2</sub>, alcohol , and energy

Q9. We respire to use the oxygen , to oxidise our food and release energy . this is similar like burning but a slower process it also need respiratory enzymes . respiration is a slower process than burning and energy release can be stored for later use

$C_6H_{12}O_6 + O_2 \rightarrow H_2O + CO_2 + \text{energy}$

Q10. The food has stored energy which is released during respiration thus we should eat regularly

### A/s of long Q/a

Q1. The air we breath in transported to every parts of body and ultimately it is transported to each cell , in the cells oxygen in the air help in the breakdown of food this process of breakdown of food in the cell with the release of energy is called cellular respiration .

Q2 . The air we breath in transported to every parts of body and ultimately it is transported to each cell , in the cells oxygen in the air help in the breakdown of food this process of breakdown of food in the cell with the release of energy is called cellular respiration .  
cellular respiration take place / occurs in the cell of all organism.

Q3.	Aerobic respiration	Anaerobic respiration
1. An aerobic respiration takes place Using o <sub>2</sub> ,inhales in breathing .		1. Where an anaerobic r -espiration requires
2. In aerobic respiration ,breathing of Glucose result in production of co <sub>2</sub> ,water and energy		no o <sub>2</sub> 2.in aerobic respiration t -he breakdown of gulco
3. An aerobic respiration uses respiratory Organs such as lungs		-se first result in lactic acid and energy and This break into co <sub>2</sub> , h <sub>2</sub> o 3.aerobic respiration take pla -ce at cellular or muscular Leve

By- Ritesh srivastava

EMMANUEL SCHOOL

ASSIGNMENT

CH-5

PHYSICAL AND CHEMICAL CHANGE

SUB → CHE

CLASS → 07

BY → Ravi BHUSHAN SIR

Book Page → 65 to 67

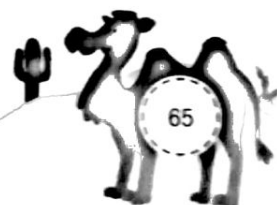


**What Have I Learnt**

**I. Objective Type Questions.**

**A. Tick (✓) the correct answer.**

- Melting of butter is which kind of change?  
 a. Physical  
 b. Chemical  
 c. Both a and b  
 d. Neither a nor b
- Which of these chemical reactions involve the replacement of an element or ion from one compound to another?  
 a. Double displacement reaction  
 b. Single displacement reaction  
 c. Oxidation-reduction reaction  
 d. Decomposition reaction
- Two or more reactants combine to form a new product in:  
 a. Exothermic reaction  
 b. Single displacement reaction  
 c. Combination reaction  
 d. Decomposition reaction
- During exothermic chemical reactions, heat is:  
 a. Released  
 b. Absorbed  
 c. No effect  
 d. First absorbed and then released



5. Rusting of iron can be prevented by:
  - a. Galvanisation
  - b. Absorption
  - c. Forming precipitate
  - d. Reacting it with water
6. Carbon reacting with sulphur to give carbon disulphide while absorbing heat is an example of:
  - a. exothermic reaction
  - b. precipitation reaction
  - c. oxidation reaction
  - d. endothermic reaction

7. When magnesium reacts with oxygen to form magnesium oxide, it is a type of:
  - a. Decomposition reaction
  - b. Double displacement reaction
  - c. Combination reaction
  - d. Precipitation reaction
8. In a chemical reaction, if a liquid turns into gas, then it is a:
  - a. Change in state
  - b. Change in energy
  - c. Endothermic reaction
  - d. Formation of precipitate

**B. State whether the following statements are True or False. Correct the false statements.**

1. A chemical reaction is the symbolic representation of a chemical equation. False.
2. Matter exists in three forms—solid, liquid and gas. True
3. In a single displacement reaction, one compound displaces another compound. False
4. In a precipitation reaction, an insoluble substance is formed by mixing two solutions. True
5. Change in colour is a kind of physical change. False
6. Forming of a precipitate is a chemical change. True

**C. Unscramble the letters to find the answers.**

1. The method used to prevent rusting (**NILANGGAVSI**) GALVANISATION
2. The chemical reaction in which heat is released (**EROCHMITXE**) EXOTHERMIC
3. The chemical reaction in which heat is absorbed (**OTHNEREMCID**) ENDOTHERMIC
4. The chemical reaction in which a compound breaks down into two or more components due to breaking of bonds. (**MOPOCSIDIENO**) DECOMPOSITION
5. The word which is also used to denote an oxidation-reduction reaction (**OEXDR**) REDOX
6. A change where no new substance is formed (**YIHPSCLA**) PHYSICAL
7. A change where there is a change of energy (**MHELICAC**) CHEMICAL
8. An insoluble substance formed when two solutions react (**TPECRIITPAE**) PRECIPITATE





D. Fill in the blanks.

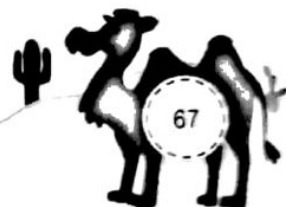
1. In a Combination reaction two or more reactants combine to form a new product.
2. An oxidation and reduction reaction is also known as redox reaction.
3. Evaporation is used to separate a solid solute from a Solvent.
4. When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as Double Displacement Reaction.
5. When iron nails are dipped in copper sulphate solution, a green-coloured Iron Sulphate solution is formed.
6. When magnesium reacts with oxygen, it produces Magnesium oxide.
7. When carbon reacts with oxygen to form carbon dioxide heat is released.
8. Heat is absorbed in Endothermic reaction.

II. Short Answer Questions.

1. What is a precipitation reaction?
2. Explain the change in state with one example.
3. What are endothermic reactions?
4. Give an example of an oxidation-reduction reaction.
5. Is crystallisation a physical change or a chemical change? Why?

III. Long Answer Questions.

1. Differentiate between physical and chemical reactions. Explain with examples.
2. What are endothermic and exothermic chemical reactions? Give one example each to support your answer.
3. Briefly explain the different types of chemical reactions.
4. Briefly explain the characteristics of chemical changes.
5. Give two examples each for explaining change in state and change in colour during a chemical reaction.
6. Explain displacement and double displacement reactions using examples.
7. What are the two methods of separating a solid from a liquid?
8. Melting of wax is a physical change, whereas burning of wax is a chemical change. Why?
9. Conversion of organic matter into biogas is a chemical change. Explain why.



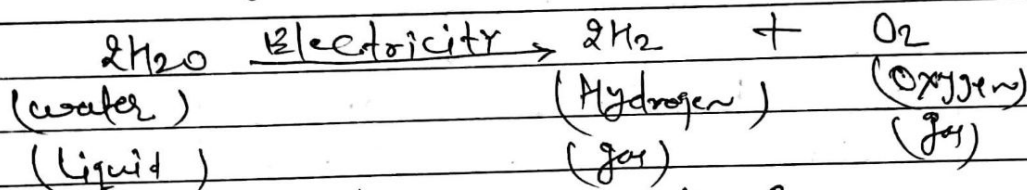
Short Answer Question

① What is a precipitation reaction?

Sol<sup>n</sup> :-> When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as precipitate and the reaction is thus known as precipitation reaction.

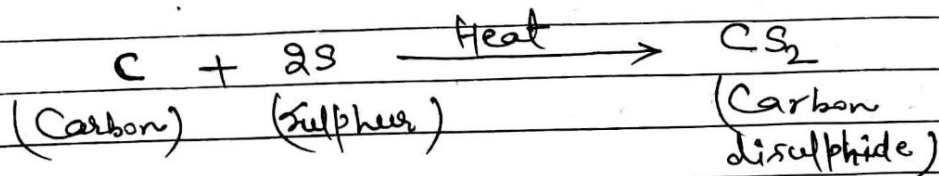
② Explain the change in state with one example.

Sol<sup>n</sup> :-> When electricity is passed through water, it produces hydrogen and oxygen gases. Here liquids turns into a gaseous state.



③ What are Endothermic reactions?

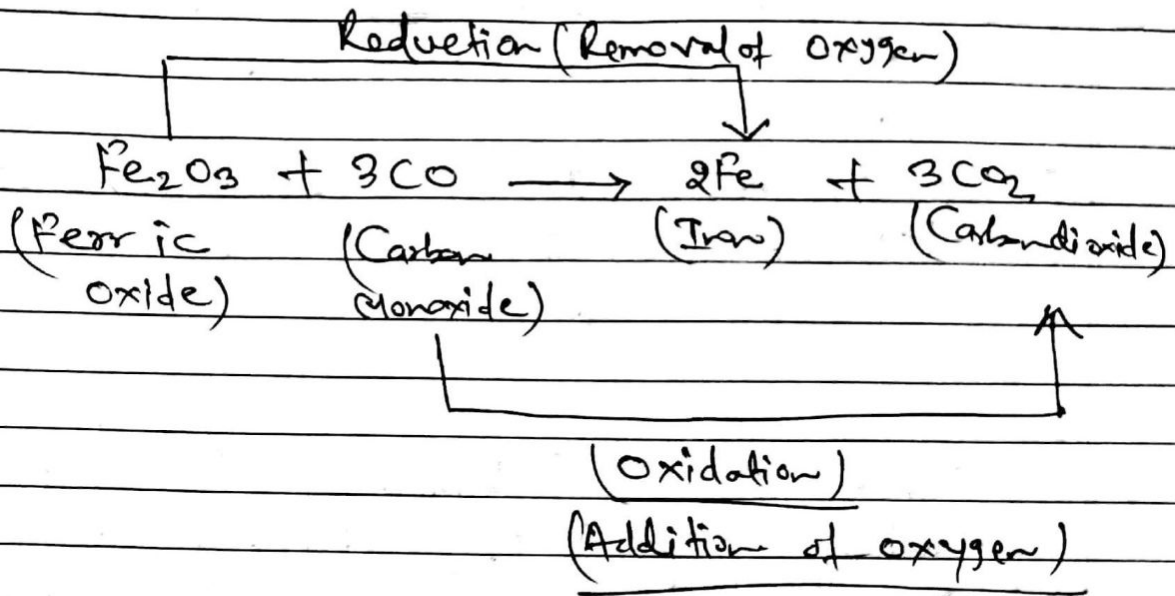
Sol<sup>n</sup> :-> The chemical reactions or changes in which heat is absorbed called Endothermic reactions.



④ Give an example of an oxidation-reduction reaction.

Sol<sup>n</sup> :-> When ferric oxide reacts with carbon monoxide, ferric oxide is reduced into iron and carbon monoxide is oxidised.

into Carbon dioxide.



In Crystallisation a physical change or a chemical change? Why?

∴ → Crystallisation is a physical change. In this process solvent evaporates, the saturated solution is left behind. In this process no chemical reaction takes place.

Long Answer questions

Differentiate between physical and chemical reactions. Explain with Examples.

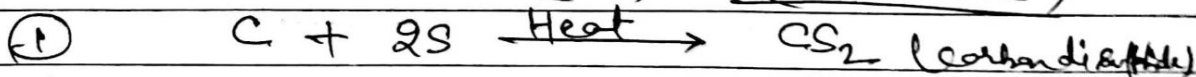
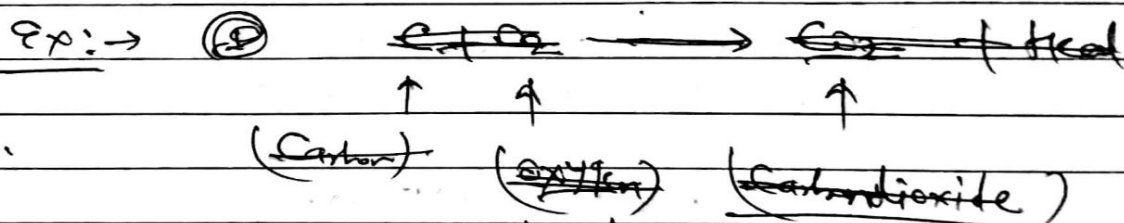
<u>PHYSICAL CHANGE</u>	<u>CHEMICAL CHANGE</u>
It is a change in which no new substance is formed.	① It is a change in which a new substance is formed.
It is a change in which only physical state of a substance is changed.	② It is a change in which chemical properties of substance change.

Physical change	Chemical change
<p>(3) The change can be reversible or Irreversible</p> <p>(4) These change are mostly temporary</p>	<p>(3) The change are mostly Irreversible</p> <p>(4) The change are mostly permanent.</p>

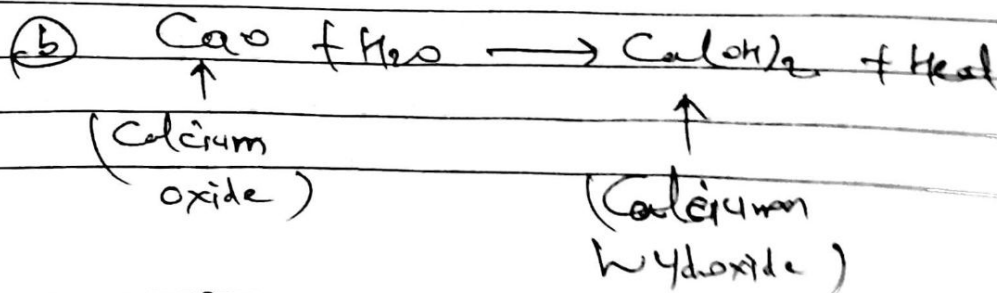
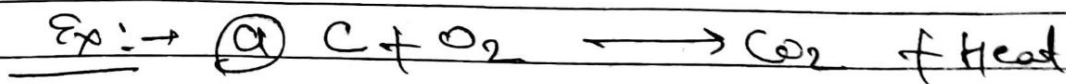
(2) What are endothermic and exothermic chemical reactions? Give one example

Endothermic Reaction :-> The chemical

reaction or change in which heat is absorbed during the reaction are called endothermic reaction.



Exothermic Reaction :-> The chemical reaction or change in which heat is released is called exothermic reaction.

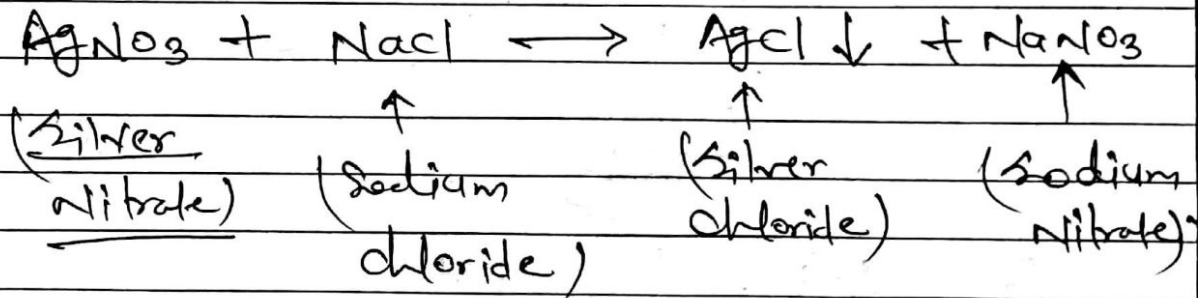


Briefly Explain the different types of Chemical reactions.

Different types of Chemical Reaction  
Written below:

Precipitation Reaction :-> When two solutions are mixed, cations and anions of the reactants combine to form the solid, known as precipitate and the reaction is then known as precipitation reaction.

Ex: -> (1) When silver nitrate is added to sodium chloride, a precipitate of silver chloride is formed.

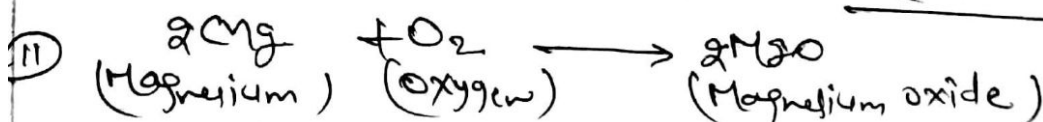
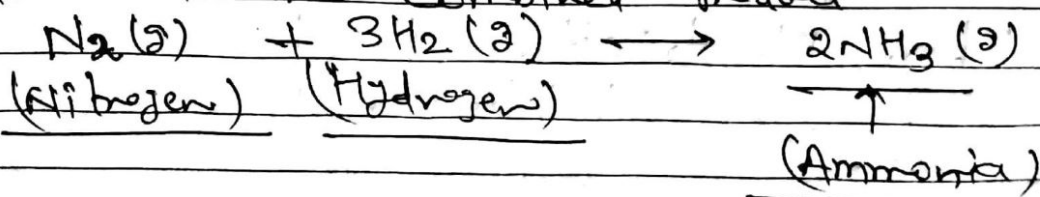


Combination Reaction :-> In a

Combination reaction (or synthesis reaction), two or more reactants combine to form a new product.



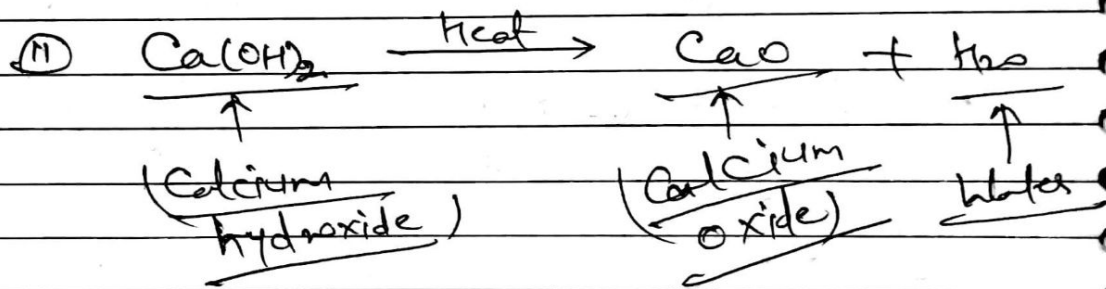
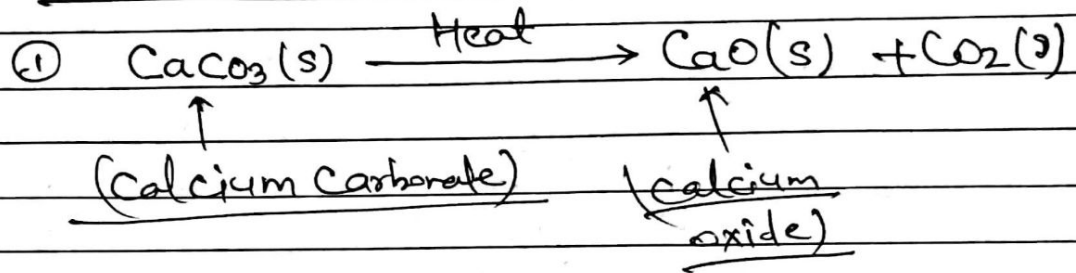
Here A and B are reactants and AB is the combined product.



③ DeComposition Reaction → In a

decomposition reaction, a Compound breaks into two or more Components due to the breaking of bonds. It happens due to the action of light, heat and Electricity.

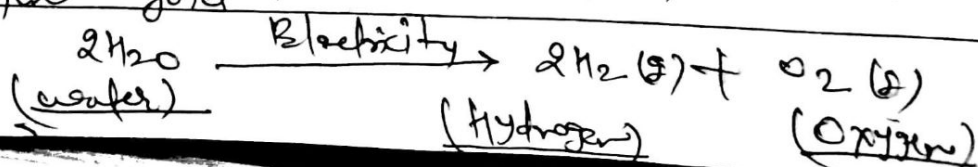
① Action of Heat



② Action of Light

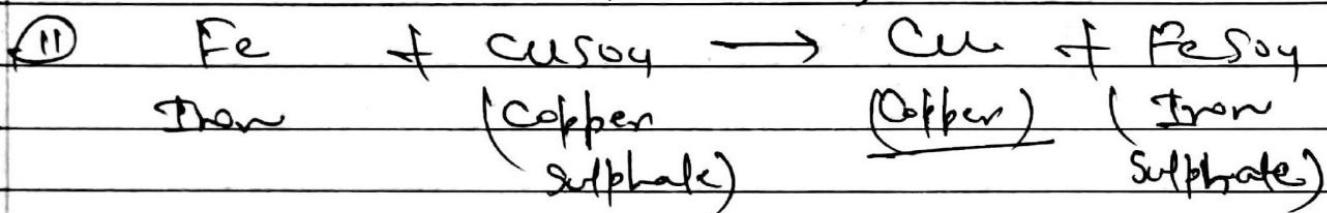
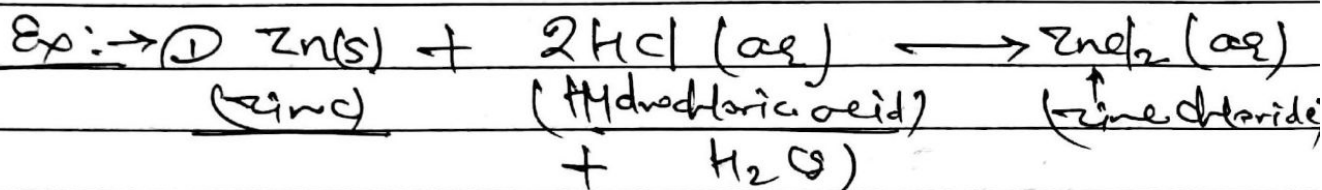
③ Action of Electricity

When Electricity is passed through water, it produces Hydrogen and oxygen gas.



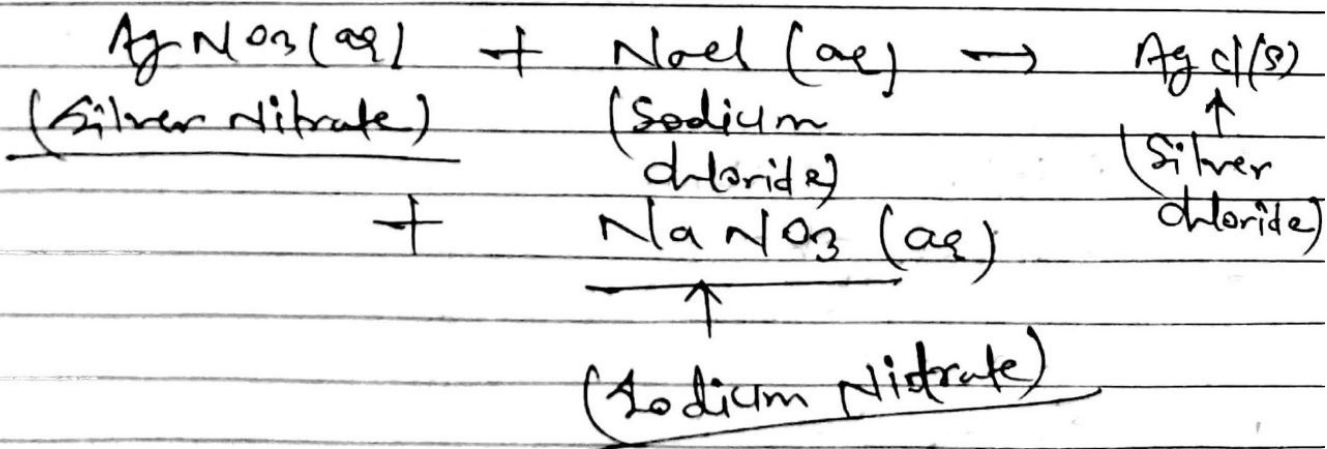
④ Single Displacement Reaction :->

Single displacement reaction is a reaction in which a more reactive element displaces a less reactive element from its salt solution.



Double Displacement Reaction :->

In double displacement reaction, positive ion and negative ion switch their positions and form new products.



Oxidation-Reduction Reaction :->

Oxidation reaction :-> Oxidation

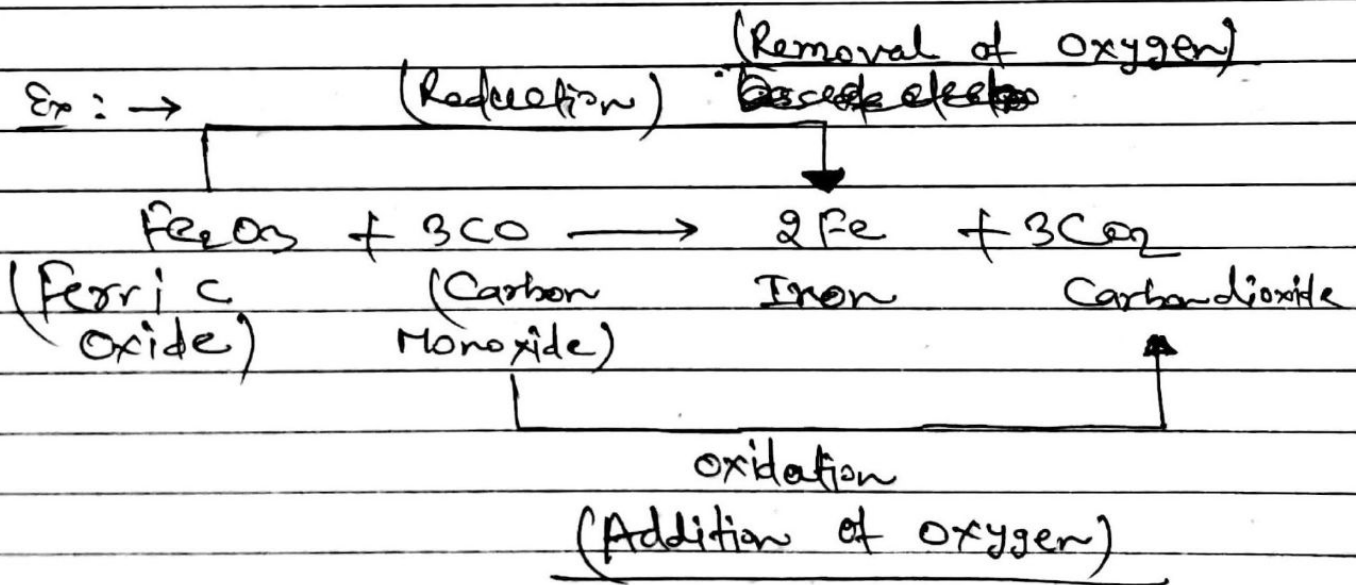
which following process takes place

- (I) Loss of electrons
- (II) Addition of oxygen
- (III) Removal of hydrogen

Reduction Reaction :  $\rightarrow$  'Reduction Reaction'

are that process in which following process takes place.

- (I) gain of electrons
- (II) Addition of hydrogen
- (III) Removal of oxygen



Q) Briefly explain the characteristics of chemical changes

Soln:  $\rightarrow$  The following are some characteristics of chemical changes.

(1) Change in colour :  $\rightarrow$  following chemical reaction represent change in colour.

(1) Changing of colour of an apple when kept in the open is an example of a chemical reaction.

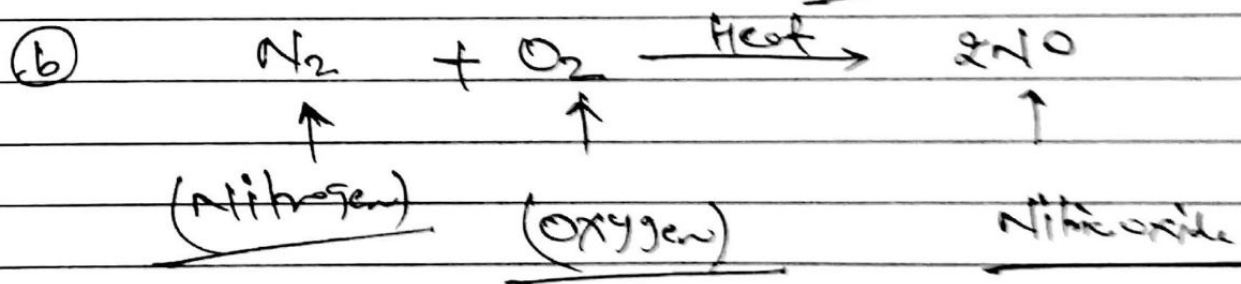
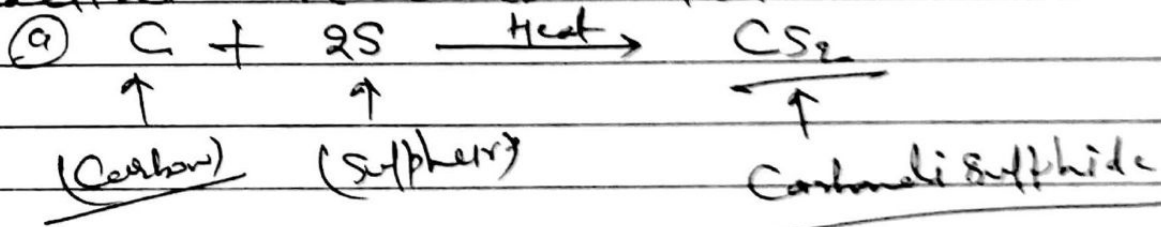


~~Change in Energy~~ it is added to dilute Sodium hydroxide, the solution turns pink.

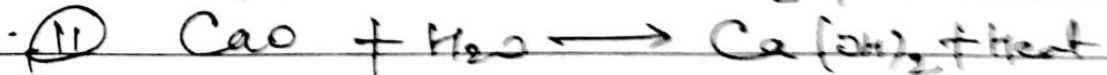
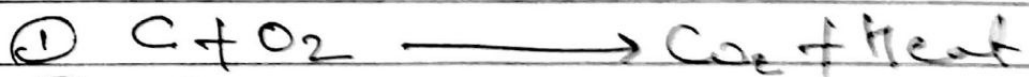
Change in Energy :→ Endothermic and Exothermic reaction

represent change of Energy.

Endothermic reaction :→ Such type of reaction in which Heat is absorbed.



Exothermic reaction :→ The reaction in which Heat is released is called Exothermic reaction.



## EMMANUEL SCHOOL

### Biology Assignment no-3

#### CLASS-VII[CH-7]

Fill in the blank with the correct word.

Q1..... Is know as the ship of desert.

Q2. Polar bear is found across the .....

Q3. Earth move around the ..... in the solar system.

Q4. Match the animal mentioned in column 1, with their characteristic feature given in column2, .

Column1.

Column 2.

[a] Red eyed frog

[1] very sensitive hearing

[b] penguin

[2] streamlined body

[c] Tiger

[3] silver-white mane

[d] lion –tailed macaque

[4] sticky pads on feet

Q5. Why is it difficult to predict the weather of a place while it is easy to predict its climate?

Q6. Name two animals each that live in polar region and tropical rain forests.

Q7. Write two common adaptive features of a polar bear which help in keeping it warm .

Q8. Meantion two adaptive features of penguin that help it in swimming.

Q9. Differentiate between :

1. weather and climate

2. humidity and rainfall

3. climates of polar region and tropical rain forest

4. maximum and minimum temperatures of the day

Q10. Explain the factors determining the climate of a place.

By – Ritesh Srivastava