

KERALA PUBLIC SCHOOLS
ACADEMIC YEAR 2020-21



CLASS : X

HOME ASSIGNMENT

DATE:7.05.2020 to 20.05.2020

SUBJECT	ASSIGNMENTS
HINDI	<p>STD-X</p> <p>पाठ-11 बालगोबिन भगत पाठ को पढ़ें।</p> <p>[1]भगत की पुत्रवधू उन्हें अकेले क्यों नहीं छोड़ना चाहती थी ?</p> <p>[2]भगत के व्यक्तित्व और उनकी वेशभूषा का अपने शब्दों में चित्र प्रस्तुत कीजिए।</p> <p>[3]आपकी दृष्टि में भगत की कवीर पर अगाध श्रद्धा के क्या कारण रहे होंगे।</p> <p>[4]पाठ के आधार पर बालगोबिन भगत के मधुर गायन की विशेषताएँ लिखिए।</p> <p>भाषा-निम्नलिखित वाक्यों के रेखांकित पदों का परिचय लिखिए –</p> <p>[क] आज भी भारत में अनेक <u>अभिमन्यु</u> हैं।</p> <p>[ख] प्रातःकाल घूमने जया करो <u>ताकि</u> स्वास्थ्य ठीक रहे।</p> <p>[ग] पिताजी कल ही तीर्थयात्रा पर <u>गए</u>।</p> <p>[घ] अनुराग ने <u>काला</u> कोट पहना है।</p> <p>[ड] <u>बीर</u> पुरुषों का सर्वत्र आदर किया जाता है।</p> <p>[च] अध्यापिका ने बच्चों को एक कहानी <u>सुनाई</u>।</p>
MATHS	<p>Students are requested to download Diksha App .Refer to the videos /ppt given in the app .Answer the questions given in the app .</p> <p>Chapter -8 Trigonometric Ratios of Complementary angles Ex-8.3</p> <p>Chapter -12 Trigonometric Ratios of Complementary angles</p> <p>R.S.AGGARWAL[C.B.S.E QUESTIONS]</p> <p>Chapter-8 Trigonometric Identities Ex-8.4</p> <p>Chapter-13 Trigonometric Identities Chapter [R.S.AGGARWAL[C.B.S.E QUESTIONS]</p>
SCIENCE	<p>PHYSICS</p> <p>Magnetic Effects of Electric Current</p> <p>Students are requested to download Diksha App .Refer to the videos /ppt given in the app .Answer the questions given in the app .</p> <p>Diksha App [very short Answers], Diksha App [short Answers], Diksha App [Long Answers] Diksha App[M.C.Q] ,Very Short Questions[Q.no-1-10], Very Short Questions[Q.no-11-20], Very Short Questions[Q.no-21-32], Short Questions [Q.N0-1-8], Short Questions [Q.N0-9-16], Short Questions [Q.N0-17-24]</p> <p>(CHEMISTRY)</p> <p>CH 1 - CHEMICAL REACTIONS AND EQUATIONS - CORROSION & RANCIDITY PPT</p> <p>1—Write question no 6 to 15 and Short answer 1 to 3 from (Page no. 20, self study)</p> <p>2—Write question no 4 to 10 from (Page no. 21)</p>

- 3—Write question no 11 to 15 from (Page no. 22)
4—Write question no. 16 to 20 from (Page no. 23)
5—Write long answer 1 to 5 and application based questions from (Page no. 24,25)
NOTE—Find the attachment of self study page no. 20 to 25

CH 1 - CHEMICAL REACTIONS AND EQUATIONS (reference book) - BALANCE EQUATION PPT

- 1--- Question no. 8 (Balance the following equation) no. (a to e)
2--- Question no. 8 (Balance the following equation) no. (f to j)
3--- Question no. 8 (Balance the following equation) no. (k to o)
4--- Question no. 8 (Balance the following equation) no. (p to r)

Write the balanced chemical equation of the following reaction from question no. 9 (a to c)

5--- Write the balanced chemical equation of the following reaction from question no. 9 (d to h)

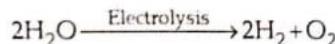
NOTE--- Attachment given (ref. book page no. 68)

Q.6. State one basic difference between a physical change and a chemical change. [CBSE- 2014]

Ans. In a physical change, no new substance is formed while in a chemical change, a new substance is formed.

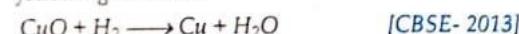
Q.7. In electrolysis of water, why is the volume of gas collected over one electrode double that of gas collected over the other electrode ? [CBSE- 2013]

Ans. Because during electrolysis, water splits into two molecules of hydrogen and one molecule of oxygen.



Here, the gases hydrogen and oxygen present on both electrodes are in the ratio of 2 : 1.

Q.8. Name the oxidising and reducing agent in the following reaction :



Ans. Oxidising agent is CuO.

Reducing agent is H₂.

Q.9. On adding dilute hydrochloric acid to copper oxide powder, the solution formed is blue-green. Predict the new compound formed which imparts a blue-green colour to the solution. [CBSE- 2013]

Ans. The new compound formed is copper (II) chloride (CuCl_2) which imparts a blue-green colour to solution.

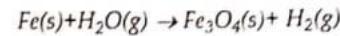
Q.10. What type of coating is formed on silver articles when they get corroded ?

Ans. The silver articles form black coating of silver sulphide (Ag_2S).

Q.11. What type of coating is formed on copper articles when they get corroded ? [CBSE- 2013]

Ans. The copper articles form green coating of basic copper carbonate [$\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$].

Q.12. Balance the following chemical equation: [CBSE- 2013]



Q.13. What is meant by skeletal equation? [CBSE- 2013]

Ans. Unbalanced chemical equation is called a skeletal equation.

Q.14. Which one is a chemical change-Electrolysis of water or Sodium chloride exposed to sunlight? [CBSE- 2013]

Ans. Electrolysis of water.

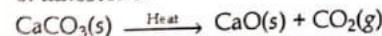
Q.15. If copper metal is heated over a flame, it develops a coating. What is the colour and composition of the coating ? [CBSE- 2013]

Ans. Black, CuO or Copper oxide.

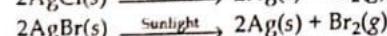
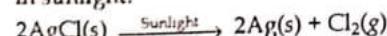
Short Answer Type Questions

Q.1. Explain giving chemical equation any two uses of chemical decomposition reaction in industry. [CBSE- 2014]

Ans. (i) In manufacturing cement, quicklime is used and it is obtained by thermal decomposition of limestone.



(ii) In manufacturing photochromic glass, silver chloride/bromide is used which turns grey in sunlight.



Q.2. Name the type of reaction for the following :

(i) Vegetable matter changing into compost.

(ii) Burning of natural gas.

(iii) Silver items turning black when left exposed to air.

(iv) Change in colour of copper sulphate from blue and green on dipping a nail in it. [CBSE- 2014]

Ans. (i) Decomposition reaction.

(ii) Oxidation.

(iii) Oxidation reaction.

(iv) Displacement reaction.

Q.3. (i) When a metal 'X' is added to salt solution of metal 'Y', following chemical reaction takes place. Metal X + Salt solution of 'Y' → Salt solution of 'X' + Metal 'Y'.

(ii) Mention the inference you draw regarding reactivity of metal 'X' and 'Y' and also about the type of reaction. State the reason of your conclusions. [CBSE- 2013]

Ans. It is a displacement reaction.

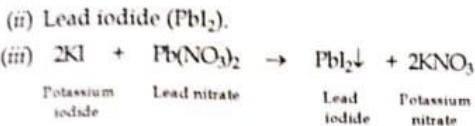
(i) Metal X is more reactive than metal Y.

(ii) Metal X is displacing metal Y from its salt solution. A more reactive metal displaces less reactive one from its salt solution, more reactive than Y.

Q.4. When potassium iodide solution is added to a solution of lead (II) nitrate in a test tube, a precipitate is formed.

- (i) What is the colour of this precipitate ?
(ii) Name the compound precipitated.
(iii) Write a balanced chemical equation for this reaction.
(iv) What type of reaction is this ? [CBSE- 2013]

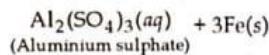
Ans. (i) Yellow.



(iv) This is a double displacement reaction. It can also be called a precipitation reaction.

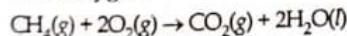
Q.5. An aluminium can was used to store ferrous sulphate solution. It is observed that in few days holes appeared in the can. Explain the observation and write chemical equation to support your answer. [CBSE- 2013]

Ans. Aluminium being more reactive displaces ferrous ions from ferrous sulphate solution and this results in the appearance of holes in the aluminium can.



- Q.6.** (a) Why is combustion reaction an oxidation reaction ?
(b) How will you test whether the gas evolved in a reaction is hydrogen ? [CBSE- 2013]

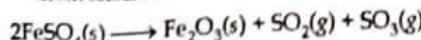
Ans. (a) Combustion reaction is an oxidation reaction because it is always carried in the presence of air or oxygen.



(b) Bring a burning matchstick close to the mouth of the tube from which hydrogen gas escapes. The gas will immediately catch fire and this will be accompanied by pop sound.

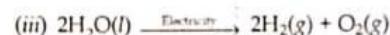
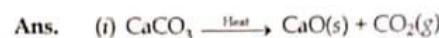
Q.7. What is the colour of $FeSO_4 \cdot 7H_2O$ crystals? How does this colour change upon heating ? Give balanced chemical equation for the change. [CBSE- 2013]

Ans. $FeSO_4 \cdot 7H_2O$ is green in colour and loses water of crystallisation when it is heated. It is then decomposed to Fe_2O_3 (brown coloured), SO_2 and SO_3 .



Q.8. Decomposition reactions require energy either in the form of heat or light or electricity for breaking down the reactants. Write one equation each for decomposition reactions where energy is supplied in the form of heat, light and electricity.

[CBSE- 2013]



Q.9. State what happens when :

(a) Hydrated copper sulphate is heated

(b) Gypsum is heated at 373 K.

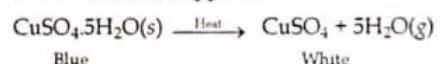
(c) Chlorine gas is passed through dry slaked lime.

Also write the chemical equation in each case.

[CBSE- 2015]

Ans. (a) When hydrated copper sulphate is heated, five molecules of water of crystallisation are removed and the blue colour of crystals turns white.

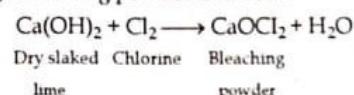
If we moisten the crystals again with water the blue colour reappears.



(b) When gypsum is heated at 373 K plaster of paris is formed.



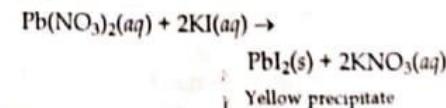
(c) Bleaching powder is formed



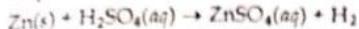
Q.10. Write the chemical equation of the reaction with an example each in which the following changes have taken place :

- (i) change in colour. (ii) change in temperature.
(iii) formation of precipitate. [CBSE- 2014]

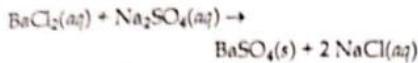
Ans. (i) **Change in colour :** Reaction between lead nitrate solution and potassium iodide solution. Change in colour from colourless to yellow.



(ii) **Change in temperature** : Action of dil. sulphuric acid on zinc.



(iii) **Formation of precipitate** : Action of barium chloride on sodium sulphate.



Q.11. (a) Write one example for each of the decomposition reactions carried out with the help of:

- (i) electricity (ii) heat (iii) sunlight

Give balanced chemical equations in each case.

(b) Which of the following statement is correct and why?

Copper can displace silver from the solution of silver nitrate and silver can displace copper from the solution of copper sulphate. [CBSE- 2014]

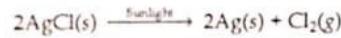
Ans. (a) (i) Electricity :



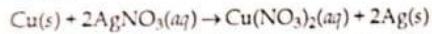
(ii) Heat :



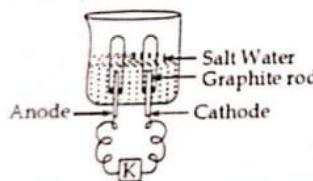
(iii) Sunlight :



(b) Copper can displace silver from silver nitrate solution because it is more reactive than silver.



Q.12. Observe the following diagram and answer the questions that follow:



(i) Identify the gases evolved at anode and cathode.

(ii) Why are the amounts of gases collected in the two test tubes are of not the same volume?

(iii) What type of reaction is this?

(iv) Why should we use salt water? [CBSE- 2014]

Ans. (i) (a) At anode, oxygen gas is evolved.

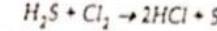
(b) At cathode, hydrogen gas is evolved.

(ii) The amounts of gases collected in the two test tubes are of not the same volume because in water, hydrogen and oxygen are present in the ratio of 2 : 1 by mass.

(iii) This reaction is decomposition reaction.
(iv) To conduct electricity through it.

Q.13. (a) Give an example for a combination reaction which is exothermic.

(b) Identify the oxidising agent, reducing agent in the following reaction :



(c) Name the phenomenon due to which the taste smell of city food changes when kept for a time in open. Suggest one method to prevent it. [CBSE- 2014]

Ans. (a) $2\text{H}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{H}_2\text{O}(\text{l}) + \text{Heat}$

(b) Oxidising agent- Cl_2
Reducing agent- H_2S

(c) Rancidity, keeping food in airtight container

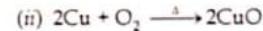
Q.14. A reddish-brown coloured metal, used in electric wires, when powdered and heated strongly in an open china dish, its colour turns black. When hydrogen is passed over this black substance, it regains its original colour. Based on the above information, answer the following questions :

(i) Name the metal and the black coloured substance formed.

(ii) Write balanced chemical equations for both the reactions. [CBSE- 2014]

Ans. (i) Metal is copper.

Black coloured substance is copper oxide.



Q.15. The following diagram displays a chemical reaction. Observe carefully and answer the following questions :



Silver chloride

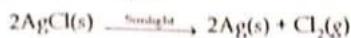
(a) Identify the type of chemical reaction that takes place and define it. How will the colour of the salt change?

(b) Write the chemical equation of the reaction that takes place.

(c) Mention one commercial use of this salt. [CBSE- 2014]

Ans. (a) It is a photochemical decomposition reaction. It can be defined as the decomposition of a substance in presence of sunlight in which a single reactant breaks down to give six products.

(b) White silver chloride changes to grey, as it decomposes to silver and chlorine in the presence of sunlight.



(c) Black and white photography.

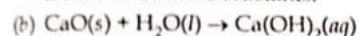
Q16. A small amount of quicklime is added to water in a beaker.

(a) Name and define the type of reaction that has taken place.

(b) Write balanced chemical equation for the above reaction. Write the chemical name of product obtained.

(c) State two observations that you will make in the reaction. [CBSE- 2012]

Ans. (a) It is a combination reaction. It is defined as a reaction in which a single product is formed from two or more reactants.



Calcium hydroxide

(c) Calcium oxide :

- (i) reacts vigorously with water.
- (ii) releasing a large amount of heat.

Q17. A metal 'X' acquires a green colour coating on its surface on exposure to air.

(i) Identify the metal 'X' and name the process responsible for this change.

(ii) Name and write chemical formula of the green coating formed on the metal.

(iii) List two important methods to prevent the process. [CBSE- 2012]

Ans. (i) X - Copper (Cu), Process - Corrosion

(ii) Green coating is - Basic copper carbonate / Copper carbonate $\text{CuCO}_3\text{Cu}(\text{OH})_2$.

(iii) Painting, oiling, greasing, galvanising, chrome plating, anodising or alloying.

Q18. Describe an activity to show a decomposition reaction in which light is used to decompose a reactant. Write chemical equation of the reaction and state its one use. [CBSE- 2012]

Ans. (i) Take 2 g silver chloride in a china dish.

(ii) Place this china dish in sunlight for sometime.

(iii) Observe the colour of silver chloride after sometime. Silver chloride turns grey in sunlight due to decomposition of AgCl to Ag and Cl_2 .

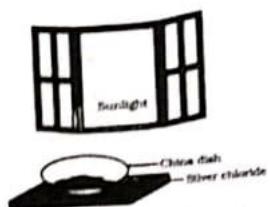
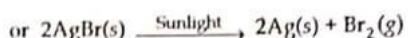
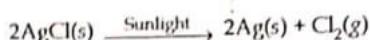


Fig. Silver chloride turns grey in sunlight to form silver metal.



Q19. 2 g of ferrous sulphate crystals are heated in a boiling tube.

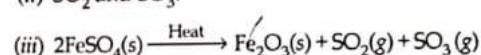
(i) State the colour of ferrous sulphate crystals both before heating and after heating.

(ii) Name the gases produced during heating.

(iii) Write the chemical equation for the reaction. [CBSE- 2012]

Ans. (i) Before heating - Pale green. After heating - Brown or reddish brown.

(ii) SO_2 and SO_3 .



Q20. Give reasons for the following :

(i) All decomposition reactions are endothermic reactions.

(ii) Colour of copper sulphate solution changes when an iron nail is dipped in it.

(iii) Respiration is an exothermic reaction. [CBSE- 2012]

Ans. (i) Decomposition reactions require energy either in the form of heat, light or electricity for breaking down the reactants or energy is absorbed.

(ii) Iron has displaced copper from copper sulphate solution to form iron sulphate which is light green in colour. Fe is more reactive than copper.

(iii) During digestion, food (rice, potatoes etc.) containing carbohydrates are broken down to form glucose. This glucose combines with oxygen in the cells of our body and provides energy. Since energy is given so it is an exothermic.

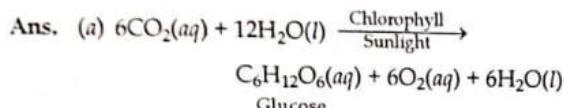


Long Answer Type Questions

Q.1. (a) Write a balanced chemical equation for the process of photosynthesis and the conditions of the reaction giving physical states of all the substances.

(b) Classify the following chemical reactions as exothermic or endothermic : [CBSE- 2015]

- (i) Electrolysis of water
- (ii) Burning of natural gas
- (iii) Decomposition of calcium carbonate.
- (iv) Burning of magnesium ribbon in air.



- (b) (i) Endothermic reaction
- (ii) Exothermic reaction
- (iii) Endothermic reaction
- (iv) Exothermic reaction

Q.2. (a) Define corrosion.
(b) What is corrosion of iron called ?
(c) How will you recognise the corrosion of silver ?
(d) Why corrosion of iron is a serious problem ?
(e) How can we prevent corrosion ? [CBSE- 2014]

Ans. (a) **Corrosion** : The process in which metals breakdown gradually by the action of air, moisture or a chemical on their surface.

- (b) Rusting of iron.
- (c) By the development of a black coating on silver.
- (d) Every year enormous amount of money is spent to replace damaged iron.
- (e) Paint, galvanisation, electroplating. (any one)

Q.3. (a) Balance the chemical equation :
 $\text{Fe}(\text{s}) + \text{H}_2\text{O}(\text{g}) \rightarrow \text{Fe}_3\text{O}_4(\text{s}) + \text{H}_2(\text{g})$
(b) Identify the type of reaction in the equation given below :
 $\text{Na}_2\text{SO}_4(\text{aq}) + \text{BaCl}_2(\text{aq}) \rightarrow \text{BaSO}_4(\text{s}) + \text{NaCl}(\text{aq})$
(c) You could have noted that when copper powder is heated in a china dish, the surface of copper powder becomes coated with black colour substance.
(i) Why has this black coloured substance formed?

(ii) What is this black substance ?

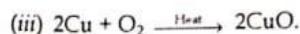
(iii) Write the chemical equation of the reaction that takes place. [CBSE-]

Ans. (a) $3\text{Fe}(\text{s}) + 4\text{H}_2\text{O}(\text{g}) \rightarrow \text{Fe}_3\text{O}_4(\text{s}) + 4\text{H}_2(\text{g})$.

(b) Double displacement reaction.

(c) (i) Black coloured substance is copper oxide. It is formed because oxygen is added to copper.

(ii) Copper (II) oxide (CuO).



Q.4. Translate the following statements into chemical equations and then balance them.

(a) Hydrogen gas combines with nitrogen to form ammonia.

(b) Hydrogen sulphide gas burns in air to give water and sulphur dioxide.

(c) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.

(d) Potassium metal reacts with water to form potassium hydroxide and hydrogen gas.

(e) Aluminium chloride reacts with ammonia to form a gelatinous white precipitate of aluminium hydroxide and a salt of ammonia. [CBSE-]

Ans. (a) $3\text{H}_2(\text{g}) + \text{N}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$

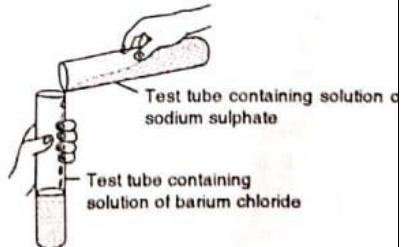
(b) $2\text{H}_2\text{S}(\text{g}) + 3\text{O}_2(\text{g}) \rightarrow 2\text{SO}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l})$

(c) $3\text{BaCl}_2(\text{aq}) + \text{Al}_2(\text{SO}_4)_3(\text{aq}) \rightarrow 2\text{AlCl}_3(\text{aq}) + 3\text{BaSO}_4(\text{s})$

(d) $2\text{K}(\text{s}) + 2\text{H}_2\text{O}(\text{l}) \rightarrow 2\text{KOH}(\text{aq}) + \text{H}_2(\text{g})$

(e) $\text{AlCl}_3(\text{aq}) + 3\text{NH}_4\text{OH}(\text{aq}) \rightarrow \text{Al}(\text{OH})_3(\text{s}) + 3\text{NH}_4\text{Cl}(\text{aq})$

Q.5. Observe the given figure and answer the following questions :



EVERGREEN Self-Study in Science

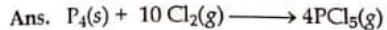
- (i) Write the complete balanced reaction for the above.
(ii) Write the type of reaction involved.
(iii) Is there any precipitate formed?
(iv) If any precipitate formed, write the colour of the precipitate.

[CBSE- 2011]

- Ans.** (i) $\text{Na}_2\text{SO}_4(aq) + \text{BaCl}_2(aq) \longrightarrow 2\text{NaCl}(aq) + \text{BaSO}_4(s) \downarrow$ (White precipitate)
(ii) Double displacement reaction.
(iii) Yes.
(iv) White precipitates of **barium sulphate** are formed.

A B Application Based Questions Solved

- Q.1.** Write a balanced chemical equation for the reaction in which phosphorus burns in chlorine to form phosphorus pentachloride. [AI- 2014]

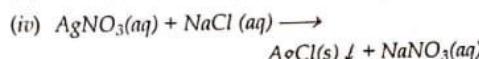
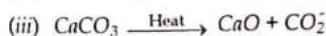


- Q.2.** List two observations which you record while burning magnesium in air.

Ans. (i) Dazzling white light can be seen during burning of magnesium.

(ii) White powder is obtained after burning of magnesium in air.

- Q.3.** Identify the type of reactions in each of the following reactions :



Ans. (i) Displacement reaction

(ii) Combination reaction

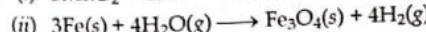
(iii) Decomposition reaction

(iv) Double displacement reaction

- Q.4.** Translate the following reactions into balanced chemical equations :

(i) Manganese dioxide is heated with aluminium powder.

(ii) Iron is treated with steam.

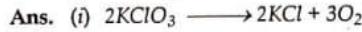


- Q.5.** Define a chemical equation. What is an unbalanced chemical equation called ?

Ans. A chemical equation is a shorthand representation of a chemical reaction using the symbols and formulae of substances involved in the chemical reaction.

An unbalanced chemical equation is only a skeletal chemical equation which gives the information about reactants and products and not about their actual number involved.

- Q.6.** Balance the following chemical equations :

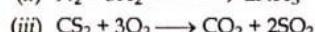


- Q.7.** Write balanced chemical equations for the following reactions :

(i) Calcium carbonate on reaction with hydrochloric acid gives calcium chloride, water and carbon dioxide.

(ii) Nitrogen reacts with hydrogen under pressure to form ammonia.

(iii) Carbon disulphide burns in air to give carbon dioxide and sulphur dioxide.



- Q.8.** Write two observations each for the following chemical reactions :

(a) Dilute sulphuric acid is poured over zinc granules.

(b) Potassium iodide solution is added to lead nitrate solution.

(c) Lead nitrate is strongly heated in a hard glass test tube.



(i) The container of the reaction mixture becomes hot as it is an exothermic reaction.

(ii) Bubbles are seen with the evolution of H_2 gas, which is combustible gas.



Biology

SCIENCE (LIFE PROCESS) SUB UNIT (CIRCULATORY SYSTEM)

- 1---- Draw a well labeled diagram of human circulatory system.
- 2---- What do you mean by double circulation? (page no. 144, evergreen, self study, attachment given)
- 3 ---- Write question no. 25, 26 from page no. 153 (Evergreen , self study attachment given)
- 4--- Write question no. 29 and 1 from page 154 and 155 (Evergreen, self study, attachment given)
- 5--- Write question n0. 13, 14, 15, 19 from page no. 162 (Evergreen, self sudy, attachment given)

(c) Valves present backflow of blood and help in the contraction of auricles and ventricles by opening and closing.

(d)

Arteries	Veins
Arteries have thick, elastic, muscular walls	Veins have thin walls with few elastic fibres

Q.2. (a) Define excretion.

Q.9. Why is small intestine in herbivores longer than in carnivores?

Ans. Digestion of cellulose takes a longer time. Hence, herbivores need a longer small intestine to allow complete digestion of cellulose. Carnivorous animals cannot digest cellulose, hence they have a shorter intestine.

Q.10. What will happen if mucus is not secreted by the gastric glands?

Ans. Gastric glands in stomach release hydrochloric acid, enzyme pepsin and mucus. Mucus protects the inner lining of stomach from the action of hydrochloric acid and enzyme pepsin. If mucus is not released, it will lead to erosion of inner lining of stomach, leading to acidity and ulcers.

Q.11. What causes movement of food inside the alimentary canal?

Ans. The wall of alimentary canal contains muscle layers. Rhythmic contraction and relaxation of these muscles pushes the food forward. This is called peristalsis which occurs all along the gut.

Q.12. Why does absorption of digested food occur mainly in the small intestine?

Ans. Maximum absorption occurs in small intestine because :

(a) digestion is completed in small intestine.

(b) inner lining of small intestine is provided with villi which increases the surface area for absorption.

(c) wall of intestine is richly supplied with blood vessels (which take the absorbed food to each and every cell of the body).

Q.13. Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms?

Ans. Aquatic organisms like fishes obtain oxygen from water present in dissolved state through their gills. Since the amount of dissolved oxygen is fairly low as compared to the amount of oxygen in the air, hence, the rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms.

Q.14. Why is blood circulation in human heart called double circulation?

Ans. The blood circulation in human heart is called double circulation because the blood passes

through the heart twice in one complete cycle of the body – once through the right half, in the form of deoxygenated blood and once through the left half, in the form of oxygenated blood.

Q.15. What is the advantage of having four chambered heart?

Ans. In four chambered heart, left half is completely separated from right half by septa. This prevents oxygenated and deoxygenated blood from mixing. This allows a highly efficient supply of oxygenated blood to all parts of the body. This is useful in animals that have high energy needs such as birds and mammals.

Q.16. Explain the role of mouth in digestion of food.

Ans. (a) Food is crushed into small pieces by the teeth

(b) It mixes with saliva and the enzyme amylase (found in saliva) breaks down starch into sugars.

(c) Tongue helps in thorough mixing of food with saliva.

Q.17. What are the functions of gastric glands present in the wall of the stomach?

Ans. (a) Production of pepsin enzyme that digests proteins.

(b) Secretion of mucus for protection of inner lining of stomach.

Q.18. Name the correct substrates for the following enzymes :

(a) Trypsin

(b) Amylase

(c) Pepsin

(d) Lipase

Ans. (a) – Protein (b) – Starch (c) – Protein (d) – Fats

Q.19. Why do veins have thin walls as compared to arteries ?

Ans. Arteries carry blood from the heart to various organs of the body under high pressure so they have thick and elastic walls. Veins collect the blood from different organs and bring it back to the heart. The blood is no longer under pressure so the walls are thin with valves to ensure that blood flows only in one direction.

Ans. **Translocation** : Transport of food prepared in the leaves to the other parts of the plants is known as translocation.

Translocation is essential for the plants for the supply of food to all parts of the plants. As food is needed for producing energy during its oxidation. Energy is then needed by all parts of the plants to perform their activities.

(i) **Sugars** are synthesized in the leaves and then transported to storage organs of roots, fruits and seeds.

(ii) **Hormones** are synthesized at the tip of the stem and at the tip of the roots.

Q.23. Name the glands associated with digestion of starch in human digestive tract and mention their role.

How is required pH maintained in the stomach and small intestine? [CBSE-2013]

Ans. **Salivary glands** - salivary amylase break starch into sugar.

Pancreas - pancreatic amylase (juice) digest starch.

Intestinal glands - intestinal amylase - digest starch.

Acidic pH in stomach - due to Hydrochloric acid secreted by stomach.

Alkaline pH in small intestine - due to bile (liver)/pancreatic juice (pancreas).

Q.24. Name the following with reference to the alimentary canal :

- the largest gland.
- the gland that secretes digestive enzymes as well as hormones.
- the part where digested food is absorbed.

(b) **What are villi? Mention their function.** [CBSE-2012, 2013]

Ans. (a) (i) Liver (ii) Pancreas (iii) Small intestine

(b) Numerous finger like projections present in the inner lining of the intestine which increase the surface area for absorption.

Function : It absorbs digested food in small intestine. Absorbs water in large intestine.

b.5 **List the three kinds of blood vessels of human circulatory system and write their functions in tabular form.** [CBSE-2016]

Ans.

Blood vessels	Functions
Arteries	They carry blood away from the heart to various organs of the body.
Veins	They collect the blood from different organs and bring it back to the heart.
Capillaries	Exchange of material between the blood and surrounding cells takes place across the thin walls of capillaries.

Q.26. Explain how the human body responds when adrenaline is secreted into the blood. [CBSE-2013-2016]

Ans. The heart beats faster, resulting in supply of more oxygen to our muscles. The blood to the digestive system and skin is reduced due to contraction of muscles around small arteries in these organs.

This diverts the blood to our skeletal muscles. The breathing rate also increases because of the contractions of the diaphragm and the rib muscles.

Q.27. (a) Name the following :

- part in which urine is produced
- part which stores the urine
- part which connects (i) and (ii)
- part from which urine is passed out.

(b) **Name the factors on which the amount of water reabsorbed along the tubular part of nephron depend on ?** [CBSE-2017]

Ans. (a) (i) Kidney (ii) Urinary bladder

(iii) Ureter (iv) Urethra.

(b) The amount of water reabsorbed depends on how much excess water there is in the body and on how much of dissolved waste there is to be excreted.

Q.28. (a) Name the following :

- part where air is filtered by fine hair and mucus.
- part which terminates in balloon - like structures.
- balloon - like structures where exchange of gases takes place.
- part which separates chest cavity from abdominal cavity.

(b) Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms ? [CBSE-2017]

Ans. (a) (i) Nasal passage
(ii) Bronchioles
(iii) Alveoli
(iv) Diaphragm.

(b) Since the amount of dissolved oxygen is fairly low as compared to amount of oxygen in the air, the rate of breathing in aquatic organisms is much faster than that in terrestrial organisms.

Q.29. List in tabular form, three differences between arteries and veins. [CBSE-2014]

Ans.

Arteries	Veins
(i) They carry blood from the heart to various organs of the body.	(i) They collect the blood from different organs and bring it back to the heart.
(ii) They have thick, elastic walls.	(ii) They have thin walls.
(iii) They do not have valves.	(iii) They have valves.

Q.30. Name three different glands associated with the digestive system in humans. Also name their secretions. [CBSE-2014]

Ans.

Name of the gland	Secretions produced
Salivary glands	Saliva contains enzyme ptyalin
Gastric glands	HCl, mucus, pepsin
Liver	Bile juice
Pancreas	Pancreatic juice which contains enzyme trypsin, lipase and amylase
Intestinal glands	Intestinal juice

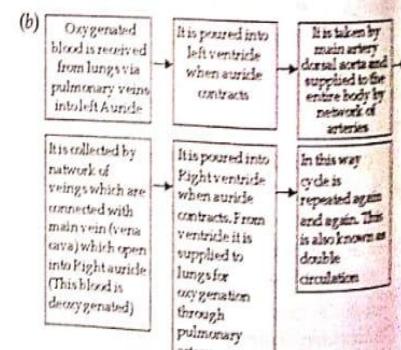
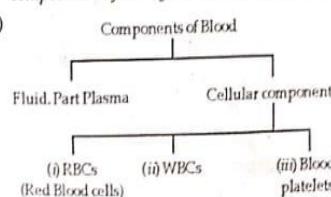
Q.31. (a) Name the following :

- (i) Organ which stores bile
 - (ii) Organ which produces bile
 - (b) Name one enzyme present in pancreatic juice and give its functions.
 - (c) What are peristaltic movements? [CBSE-2014]
- Ans. (a) (i) Gall bladder (ii) Liver
- (b) (i) Trypsin : Digest proteins into amino acids.
 - (ii) Amylase : Digest carbohydrates into simple sugars.
 - (iii) Lipase : Digest fats into fatty acids and glycerol.
 - (c) The lining of alimentary canal has muscles that contract rhythmically in order to push food forward. These are known as peristaltic movements.

Long Answer Type Questions

- Q.1. (a) Mention any two components of blood.
(b) Trace the movement of oxygenated blood in the body.
(c) Write the function of valves present in between atria and ventricles.
(d) Write one structural difference between the composition of artery and veins. [CBSE-2017]

Ans. (a)



SCIENCE (LIFE PROCESS) SUB UNIT (RESPIRATORY SYSTEM)

- 1--- Draw a well labeled diagram of respiratory system.
- 2--- Draw the breakdown of glucose by various pathway.
- 3--- Write down the difference between Aerobic and Anaerobic respiration?
- 4--- Write question no. 1, 2, 3 from page no. 141 (Evergreen, self study, see attachment given)
- Questions from page 105(N C E R T)
- 5--- Write Activity no.1, 2 and 3 from page no. 145 ,146 (Evergreen, self study, see attachment given)

Q.2. Where do plants get each of the raw materials required for photosynthesis ? [CBSE- 2012]

Ans. The raw materials for photosynthesis are : carbon dioxide and water. The plants get carbon dioxide (in gaseous form) from the atmosphere (through stomata) while the water is obtained from soil (through roots). The energy required for this process is received by chlorophyll from sun in the form of light.

Q.3. What is the role of the acid in our stomach ? [CBSE- 2012]

Ans. The hydrochloric acid (secreted by gastric glands) in our stomach creates an acidic medium which facilitates the action of enzyme pepsin (otherwise this enzyme is present in our stomach in its inactive form pepsinogen).

Q.4. What is the function of digestive enzymes ? [CBSE- 2013]

Ans. Digestive enzymes help in the breakdown of complex food particles into simpler soluble forms that can easily be absorbed by body cells for further yielding energy or for growth and maintenance. The enzymes help in the digestion process in the following ways :

- (i) The carbohydrate digesting enzymes such as salivary amylase (commonly called carbohydrases) helps in digesting carbohydrates into glucose.
- (ii) The protein digesting enzymes such as pepsin, trypsin, etc., (commonly called proteases) help in digesting proteins into amino acids.
- (iii) The fat digesting enzymes (commonly called lipases) help in digesting fats into fatty acids and glycerol.

Q.5. How is the small intestine designed to absorb digested food ? [CBSE- 2013]

Ans. The inner lining of the small intestine has numerous finger-like projections called villi which increase the surface area for absorption. The villi are richly supplied with blood vessels which take the absorbed food from each and every cell of the body.

Questions : Page 105

Q.1. What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration ? [CBSE- 2014]

Ans. The terrestrial organisms use the oxygen in the atmosphere while aquatic organisms use oxygen dissolved in water. Since the amount of dissolved oxygen is fairly low as compared to the amount

of oxygen in the air, therefore, the rate of breathing is much faster than that seen in terrestrial organisms. The other advantage to terrestrial organisms is that, they have much easier access to obtain oxygen because the solubility of oxygen decreases with temperature. This means, aquatic organisms find difficulty in breathing during summers.

Q.2. What are the different ways in which glucose is oxidised to provide energy in various organisms ?

Ans. Glucose (6 carbon molecules) is broken down first into pyruvate (3 carbon molecules) in the cytoplasm. This step is same in all organisms. This step is known as **Glycolysis** and some amount of energy (2 ATP molecules) is also released during this step. Further breakdown of pyruvate takes place in the following ways :

(i) **In yeast** : In the absence of oxygen, pyruvate is broken down into ethanol (C_2H_5OH), carbon dioxide and some amount of energy is also released.

(ii) **In muscle cells** : Due to lack of oxygen, pyruvate is broken down into lactic acid (3 carbon molecules) and some amount of energy is also released.

(iii) **In most of aerobic organisms** : In the presence of oxygen, pyruvate is broken down into carbon dioxide, water and large amount of energy is also released. This aerobic respiration takes place in the mitochondria of cells and is called **Krebs cycle**.

Q.3. How is oxygen and carbon dioxide transported in human beings ?

Ans. In humans, the air passage in lungs divide into very small tubes with blind sac-like structures called **alveoli**. These **alveoli** provide a surface where the exchange of gases can take place. The walls of the alveoli contain an extensive network of blood-vessels. The blood brings CO_2 from the rest of the body for release into the alveoli while the oxygen (in the alveolar air) is taken up by blood (in the alveolar blood vessels) for transportation to all the cells in the body. Human blood contains respiratory pigment called **haemoglobin** which has very high affinity for oxygen. This haemoglobin takes up oxygen from the air in the lungs and carries it to tissues which are deficient in oxygen before releasing it. The carbon dioxide is more soluble in water as

Important Activities with their Conclusion

ACTIVITY-1

Aim of the experiment : To demonstrate that chlorophyll is essential for the process of photosynthesis.

Requirements : A potted plant with variegated (partly green and partly white) leaves (croton or money plant), tracing paper, pencil, white paper sheet, iodine solution, alcohol, water bath.

Theory : Chlorophyll is responsible for the absorption of light and generating electrons which carry out the process of photosynthesis.

Procedure :

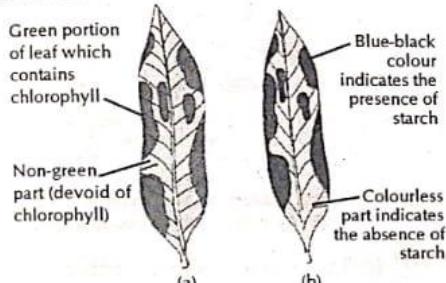


Fig. Variegated leaf (a) before and (b) after starch test.

- (i) Take a potted plant with variegated leaves, for example, money plant or crotons.
- (ii) Keep the plant in a darkroom for three days so that all the starch gets used up (Destarching process).
- (iii) Now, keep the plant in sunlight for about six hours.
- (iv) Pluck a leaf from the plant. Mark the green areas in it and trace them on a sheet of paper.
- (v) Dip the leaf in boiling water for a few minutes.
- (vi) After this, immerse it in a beaker containing alcohol.
- (vii) Carefully place the above beaker in a water-bath and heat till the alcohol begins to boil.
- (viii) Observe the colour of the leaf and the colour of the solution both.
- (ix) Again, boil the leaf in water for few minutes to make the leaf soft.
- (x) Now, dip the leaf in a dilute solution of iodine for a few minutes.

- (xi) Take out the leaf and rinse off the iodine solution.

- (xii) Observe the colour of the leaf and compare this with the tracing of the leaf done in the beginning.

Observations :

(i) The colour of the leaf decolourises when it is boiled in alcohol and the solution becomes green as alcohol removes chlorophyll.

(ii) The blue-black colour appears only in those parts of leaf which were green in colour and the variegated parts remain unaffected.

Conclusion : The starch formation takes place only in green parts of the leaf which contain chlorophyll. This experiment demonstrates that, chlorophyll is essential for photosynthesis.

ACTIVITY-2

Aim of the Experiment : To demonstrate that carbon dioxide is necessary for the process of photosynthesis.

Requirements : Two healthy potted plants of equal size, watch glass, potassium hydroxide, two bell jars, alcohol, iodine solution, water bath.

Theory : Carbon dioxide is required for the photosynthesis which the plant obtains through stomata. The stomata are the tiny pores present on the surface of the leaves.

Procedure :

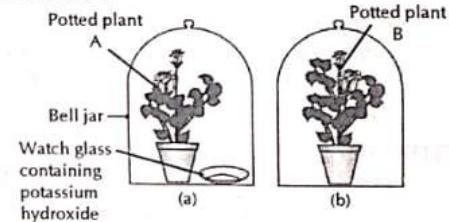


Fig. Experimental set-up (a) with potassium hydroxide (b) without potassium hydroxide.

- (i) Take two healthy potted plants which are nearly the same size. Keep them in a darkroom for three days.
- (ii) Now, place each plant on separate glass plates. Place a watch glass containing

potassium hydroxide by the side of one of the plants. The potassium hydroxide is used to absorb carbon dioxide.

- (iii) Cover both plants with separate bell jars as shown in Fig.
- (iv) Use vaseline to seal the bottom of the jars to the glass plates so that the set up is airtight.
- (v) Keep the plants in sunlight for about two hours.
- (vi) Pluck a leaf from each plant and remove chlorophyll by boiling first in water and then in alcohol.
- (vii) Boil the leaves in water again, to make them soft.
- (viii) Now, dip the leaves in a dilute solution of iodine for a few minutes.
- (ix) Take out the leaves and rinse off the iodine solution.
- (x) Observe the colour of the leaves to find out whether both the leaves show the presence of the same amount of starch.

Observations :

- (i) The leaf of plant B (which does not contain KOH) turns blue-black showing the presence of starch.
- (ii) The leaf of plant A (which contains KOH) remains colourless showing the absence of starch.

Conclusion :

- (i) Since the CO₂ was absorbed by KOH in case of plant A, therefore, photosynthesis does not occur and there is no positive starch test.
- (ii) The normal photosynthesis process takes place in plant B in the presence of CO₂. This demonstrates that, CO₂ is necessary for photosynthesis.

ACTIVITY-3

Aim of the experiment : To demonstrate that, the air we breathe out contains carbon dioxide.

Requirements : Freshly prepared lime water, two test tubes, syringe or *pichkari*, glass tube.

Theory : During the process of respiration, *lungs* is oxidised in the presence of oxygen and CO₂ is formed which comes out with the air we exhale out from our body. The presence of CO₂ can be detected by passing the exhaled air through the lime water. The lime water is a clear solution of calcium hydroxide which combines with CO₂ to form a white precipitate of calcium carbonate.

Procedure :

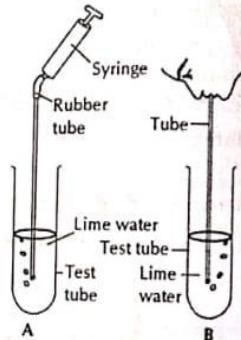


Fig. (A) Air being passed into lime water with a syringe/pichkari
(B) Air being exhaled into lime water.

- (i) Take some freshly prepared lime water in test tube B.
- (ii) Blow air through this lime water.
- (iii) Note how long it takes for the lime water to turn milky.
- (iv) Use a syringe or *pichkari* to pass air through some fresh lime water taken in another test tube A.
- (v) Note how long it takes for this lime water to turn milky.

Observations :

- (i) The lime water in tube B turns milky in a shorter time period. This shows that we exhale CO₂ during respiration.
- (ii) The lime water in tube A takes a long time to turn milky. This shows that the air also contains CO₂ but in a smaller amount.

Ausable, a secret agent, is expecting a very important report. Another secret agent, Max, threatens him with a pistol, demanding the report. Does Ausable outwit him? The story is about a secret agent, Ausable who has spent an evening with a writer named Fowler who had expected that as he would be meeting a secret agent he would be looking into a lot of adventure. But instead, he rather gets bored when he meets Ausable as the things that happened were exactly the opposite of what he had imagined. How Ausable gets rid of his unexpected guest proves his expertise as a secret agent.

WHO IS WHO

1. Ausable – A secret agent but a different one. Usually secret agents that are described in detective books and shown in films, are very smart and gun-friendly. But Ausable doesn't present such a romantic picture. He is very smart and sloppy.
2. Max – He is a secret agent and a rival and enemy of Ausable.
3. Fowler – He is a young and a romantic writer. He wants to write a book on detectives.

Summary of the Chapter

The story is about a witty secret agent named Ausable. He was with a writer named Fowler throughout the evening as Fowler was interested in spending time with a secret agent but when he spends time with Ausable he realizes that he is exactly the opposite of what he had imagined and that he was a bore. Ausable then told Fowler that he had been thinking wrong and that soon he would be looking at a report that would change the country's future. Then Ausable takes Fowler to his room and when they entered the room a guy with a gun named Max was standing in the room. He asked them to be comfortable until the reports about the missiles arrived in 30 minutes as he was there to steal the reports. This was the first adventure out of many that Fowler had expected when he had thought of meeting a secret agent. While they were talking, Ausable started with a story about how a guy had entered from the balcony last month below his room. While this talk was going on, a sudden knock was heard at the door. Ausable said that it must be the police as he wanted them to check on him after sometime because he wanted to make the reports that were coming in extra secure.

Max, pointing his gun towards them, said that he would be waiting in the balcony and that Ausable should send away the police otherwise he would shoot them and even take the risk of being caught by the police. As the doorknob is turned, Max jumps out of the window and a loud scream is heard. The door opens and a waiter comes in and says that he has brought the wine that Mr. Ausable had ordered. He keeps the bottle, tray and glasses on the table and leaves. Fowler is surprised and asks him about the police to which Ausable replied that there was no police. Then Fowler asked what about the person who was waiting in the balcony outside the window to which Ausable replied that the person would not return and that there was no balcony there. This shows the quick wit of Ausable as he took advantage of the situation and made Max nervous due to which he jumped out of the window without thinking and looking down. He had jumped from the top floor of the hotel and would have possibly died. This is how Ausable outwitted Max and saved himself from a very dangerous situation.

CHAPTER HIGHLIGHTS

- Ausable was a secret agent but he didn't look like that .He was very fat but not much tall but he is much alert in his mind.
- Ausable had a room on the sixth and top floor of a French Hotel.
- Fowler was a writer. Ausable told him that he would get an important report that night concerning some new missiles. This report could change the course of history.
- Fowler saw Max, another secret agent who threatens Fowler with a pistol demanding the report.
- Ausable handled Max cleverly. He told Max that he would complain to the hotel authorities about the balcony Which should be closed immediately.
- There was a loud knocking at the door. Ausable smiled and told that that was the police.
- Max got nervous. His face was black with anger. He asked Ausable to send the police back. In the meantime he would go and wait on the balcony.
- Max jumped into the balcony. In this way Ausable got rid of Max.

TWISTS AND TURNS IN THE CHAPTER

- Ausable was a secret agent but his appearance was opposite of his job profile.
- Fowler was very much interested in writing about secret agents but got disappointed when he got to spend time with Ausable because Fowler felt that he was a bore.
- Max was also a secret agent but a rival of Ausable.
- A fight between Fowler and Ausable happened for a document which was suppose to reach Ausable late that night.
- Ausable created a false story about the police coming with a document and also about a balcony which never existed.

QUESTION AND ANSWERS

Q. Who was Ausable? Where was he staying?

Ans: Ausable was a clever secret agent. He was staying on the sixth and top floor in a French Hotel.

Q. Who was Max? Why did he enter Ausable's hotel room? Ans: Max was another secret agent. He entered Ausable's hotel room to get that report by force.

Q. What did Ausable tell Fowler about the report?

Ans: Ausable told Fowler that he would see an important report concerning some new missiles.

Q. Who knocked at Ausable's room in the hotel?

Ans. Henry, a waiter of the hotel knocked at his room in the hotel.

Q. How is Ausable different from other secret agents?

Ans: Ausable is a secret agent but he is very fat and not much tall. His accent is also not proper. He appears to be completely different from other secret agents.

Q. Who is Fowler and what is his first authentic thrill of the day?

Ans: Fowler is a young and romantic writer. His first authentic thrill of the day is quite clear.He outwitted Ausable in a simple way.

Q. How has Max got in?

Ans: Max has got in by using a passkey in Ausable's absence.

Q. How does Ausable say he got in?

Ans: Ausable says Max has got in his room through an ordinary window. It was in the balcony.

A TRIUMPH OF SURGERY

About the author:-

James Harriot was an English veterinary surgeon and writer who wrote mainly on animals and their masters. He utilised his vast experience in writing stories about animals.

Story in brief:-

Tricki was an extremely fat dog , who was ill and foody , never denied food. Got ill because of his over diet and laziness .He was pampered by his mistress who was a fabulous rich and resourceful lady. She was passionately attached to her little pet. Tricki became listless so Mrs.Pumphrey thought that he was suffering from malnutrition. She was impractical but very caring. Dr.Harriot suggested her to restrict Tricki's rich diet but she did not follow the doctor's advice and Tricki became a victim of overindulgence and over feeding.

The situation became worsen and Tricki had to be hospitalised. Dr.Harriot was a tactful, competent and practical person who immediately stopped his food for two days in the surgery and kept him only on plenty of water. On the third day, he started taking interest in food

. Then he started walking with other dogs in the surgery . One day the doctor saw him jostling with other dogs and became very happy. In this way he made a rapid progress with hard muscles.

Tricki's recovery was beyond expectation for Mrs. Pumphrey. Tricki became thin , energetic and fit . The doctor had every idea to change Tricki's poor condition that to without any medicine.

After that Mrs.Pumphrey was informed about Tricki's recovery . She became very happy and started sending eggs , wine and other rich food for Tricki but the doctor did not serve these food to Tricki and used to have all these himself with his assistant . After that one day Mrs.Pumphrey was called to get Tricki back to her home.

The doctor got victory over surgery because he has recovered Tricki without

medication which was really an amazing thing for the doctor as well as Mrs. Pumphrey .

Think and Answers:-

Q.1- Why did Mrs Pumphrey worried about Tricki ?

Ans – Mrs.Pumphrey was Tricki's mistress who was worried about Tricki because she was an impractical lady who believed only in feeding him. She pampered him too much that Tricki became a hugely fat and listless creature. He lost his appetite and started

vomiting all the time. She found Tricki lying on a rug with red rheumy eyes. Tricki's pathetic condition was a major concern for Mrs. Pumphrey because she loved him more than anything else.

Q.2- What does she do to help him ? Is she wise in this ?

Ans – Being the mistress of Tricki , Mrs. Pumphrey immediately calls the veterinary doctor James Harriot and explained everything about Tricki to him. The immediate action taken by Mrs. Pumphrey is quite natural and expected. I think she has taken a wise decision by calling the doctor and handing him over to him.

Q.3 Who does 'I' refer to in this story ?

Ans – 'I' refers to James Harriot in this story who was a veterinary surgeon . He was a keen observer of animals and wrote on them and their master's life.

Q4 How does he treat the dog ?

Ans - The doctor knows that Tricky is greedy and foody who does not know how to refuse food . Doctor keeps him under his observation and does not give him food for two days . He keeps him only on plenty of water that to without any medicines. After two days Tricki develops his appetite and slowly recovers within fortnight. Then the Dr. handed over him to his mistress.

Q.5 Why is he tempted to keep Tricki on as a permanent guest ?

Ans –Dr. James Harriot is tempted to keep Tricki on as a permanent guest because Mrs. Pumphrey is a fabulous rich and resourceful lady . She sends all delicacies and drinks with dozens of eggs for breakfast and wine and brandy for lunch and dinner.The doctor enjoys all these along with his companion.

Naturally this tempted him to keep Tricki for long time in the surgery.

Q.6- Why does Mrs. Pumphrey think the dog's recovery is "A Triumph Of Surgery"?

Ans - Tricki has become hugely fat and looks like a bloated sausage. He has red rheumy eyes and become listless. Everytime his tongue is out of his mouth . He lays on a carpet and refused to eat anything.It is obviously a matter of surprise for Mrs.Pumphrey because Tricki never denied any food.When Mrs. Pumphrey found such a creature, recovered so soon without medication , it seemed to her as a miracle and she said it is really "A Triumph Of Surgery ".

Q.7- Do you think this is a real life episode or merely a fiction ? Or Is it a mixture of both ?

Ans - The story "A Triumph Of Surgery" seems to be a real life episode . It does not look like merely a fictional episode because there are such rich ladies like Mrs. Pumphrey who are emotionally attached to their pets and pamper them. They overfeed them and donot be strict enough as they should be in some extent.

Q.8- What kind of a person do you think the narrator, a veterinary surgeon , is? Would you say he is a tactful as well as full of common sense ?

Ans - The doctor, James Harriot, is a tactful and practical man who knows how to handle any difficult situation regarding animal's health . He has lot of experience in treating animals. He is sensible and genuinely concerned about Tricki's miserable condition . He very tactfully treated Tricki by keeping him only on water for two days because he was aware of Tricki's greed and his mistress's overfeeding process.

He kept Tricki under his strict observations and helped him to recover without any medicines.His tactful treatment was not less than a miracle for Tricki and his mistress.

1. Copy the question answers along with the theme, characters, in your notebook in a

- very neat handwriting using blue ball pen.
2. Write the character sketches of Mrs.Pumphrey, James Harriot and Tricki in not less than 100 words.
 3. Go through the text book and learn the keywords.

A Tiger in the Zoo

Summary of the poem

The poem begins with a description of a tiger that is very beautiful and is walking in his little cage. He has beautiful stripes on his skin and has velvet like soft paws. But the tiger is not happy and is quite angry about being confined in the cage. The poet says that if the tiger was not confined to the zoo cage, he would have been hiding himself behind the long grass near some water body, in order to catch its prey that is the deer. Also, he would have terrorized the residents of the villages around the forest area.

But the reality is totally opposite to this. He was confined in a cage which was made up of strong building material and he was helpless there. He could not show his power to the visitors, therefore, never tried to terrorize them. The tiger is described as being powerless and agonized by the poet. He says that during night also he is alone, hearing the voice of the patrolling vehicles of police and looking at the stars. The cage life has totally changed the tiger's personality. The poet is trying to say that the animal which is famous for its fearlessness and freedom is confined and sad due to the human beings who want to derive pleasure by looking at him in the zoo cage.

Answer the following questions in 30-40 words

Q 1. How does a tiger create terror for the villagers?

Q 2. Leslie Norris has described some of the activities of a tiger behind the bars of its cage. Write them.

Q 3. Where should the tiger have been according to the poet?

Q 4. How does the tiger make his presence felt in the village?

Q 5 What does the poet convey through the poem?

Long Answer (Value Based) Type Questions 100 – 150 words

Q 1 Love for freedom is the natural instinct of every living being .Comment.

Q 2 Is it right to confine wild animals into cages? Why or why not?

Read the following extract carefully and answer the questions that follow.

He should be snarling around houses
 At the jungle's edge,
 Baring his white fangs, his claws,
 Terrorising the village!

(i) How does the tiger scare the people?

a. By growling

- b. Walking up and down
 c. Attacking people
 d. Baring his white teeth
- (ii) Why does the tiger snarl?
 a. To show his anger
 b. Feeling helpless
 c. Wants to runaway
 d. Both(a) and (b)
- (iii) Which word in the stanza will be the antonym of the word ‘approve’ or commend
 a. lurking
 b. snarling
 c. pass
 d. baring
- (iv) How does the tiger show his presence?
 a. baring teeth and claws
 b. sitting quietly
 c. growling
 both (a) and (c)

Article Writing Std – X

- An article is a piece of non- fiction prose writing
- It evaluates student’s skills in expressing ideas ,planning and organising then presenting them with supportive examples
- It also helps to comprehend concepts and arriving at a conclusion.
- Basically it is written to express personal opinions or present information on a variety of themes.

Articles are used to:-

- express views on any subject personally
- express reasons either for or against with justifications
- describe a person , his life or actions
- describe a place

- narrate an incident or event

Important features Of an Article:-

- It is always written in third person.
- Its language should be objective and to the point
- Heading and a byline must be provided appropriate to the subject and according to the question

- It should be relevant to the verbal or visual input provided in the question

- It should normally consist of three parts -

- Introduction

- Main body

- Conclusion

These three parts should be in separate paragraphs wherever possible

- According to the topic, suitable examples should be given to support the points stated

- Either to compare and contrast method, or show a cause-effect relationship

- It should end with a summing up which gives either suggestion, recommendation or prediction:

Format of an Article:-

Title/Heading
By line-

Body

Introduction

Main body

Conclusion

Example of an Article Writing:-

Satish is asked to write an article for the school magazine on “Climate Change”.

Human activities which have a significant impact on the climate are the burning of fossil fuels such as coal, oil and gas, whether in homes, factories, vehicles or in other ways.

Burning these fuels releases carbon dioxide gas, a greenhouse gas, besides others. Since the early 1800s, when people began burning large amount of coal and oil, the amount of carbon dioxide in the earth's atmosphere has increased by nearly 30% and average global temperature appears to have risen over by 1 degree celcius.

Such a temperature rise will cause changes in the amount and pattern of rain and snow, in the length of the growing seasons, in the frequency and severity of storms, and in the sea level. Farms, forests, plants and animals would also be affected. Human also cannot escape the effects of this and hence should do their bit to save the environment.

LETTER WRITING

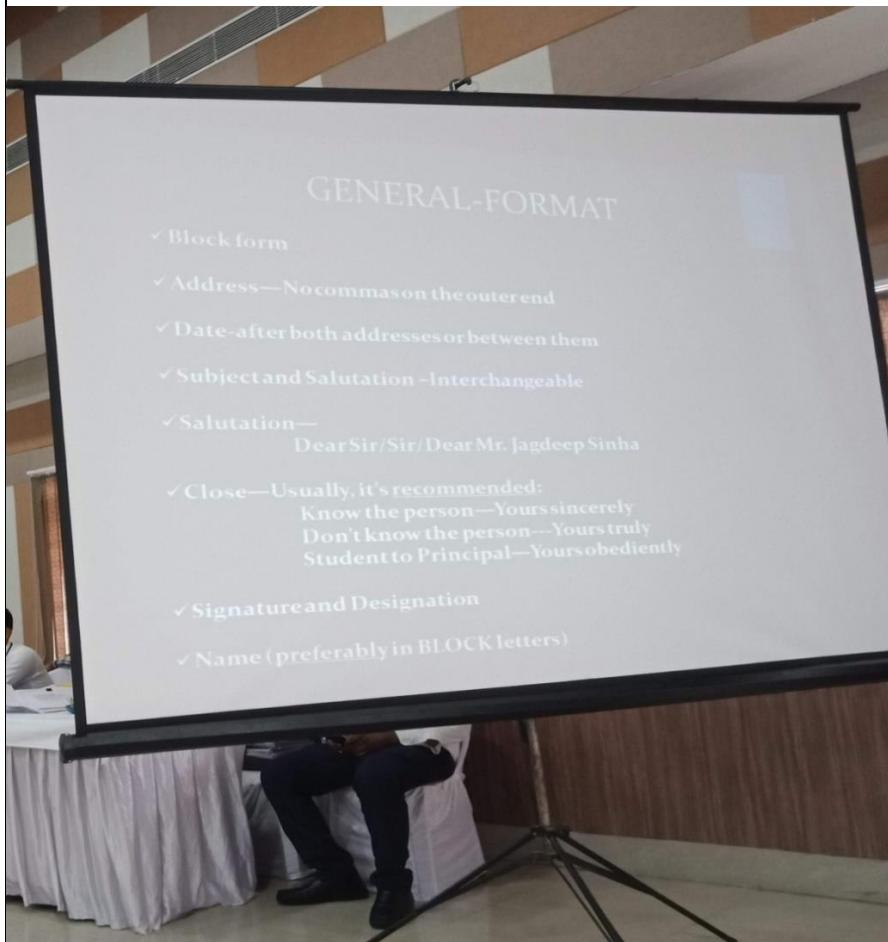
A formal letter is one written in a formal and ceremonious language and follows a certain stipulated format. Such letters are written for official purposes to authorities, dignitaries, colleagues, seniors, etc and not to personal contacts, friends or family. ... So let us take a look at a sample format of a formal letter.

Format for Writing a Formal Letter

There's a strict format to follow while writing a formal letter which is explained below:

1. Sender's address: On the left side of the page, just next to the margin, write the sender's address/ contact details.
2. Date: Below the sender's address write the date after leaving one line.
3. Receiver's address: After date, write the address of the recipient (The Officer / Principal / Editor).
4. Subject of the letter: Here you have to mention the main purpose of the letter in 4 - 5 words.
5. Salutation: Respected Sir / Madam
6. Body: Here you have to explain the matter of your letter. Body of letter must be divided into 3 to 5 paragraphs as follows:
First Paragraph: Introduce yourself and the purpose of writing the letter in brief. Second Paragraph: It should include the matter in detail.
Third Paragraph: Here you have to conclude your letter by mentioning the conclusion or solution. Always leave a line after every paragraph.
7. Complimentary Closing:
Thanking you
Yours faithfully, Yours sincerely Designation in brackets followed by name

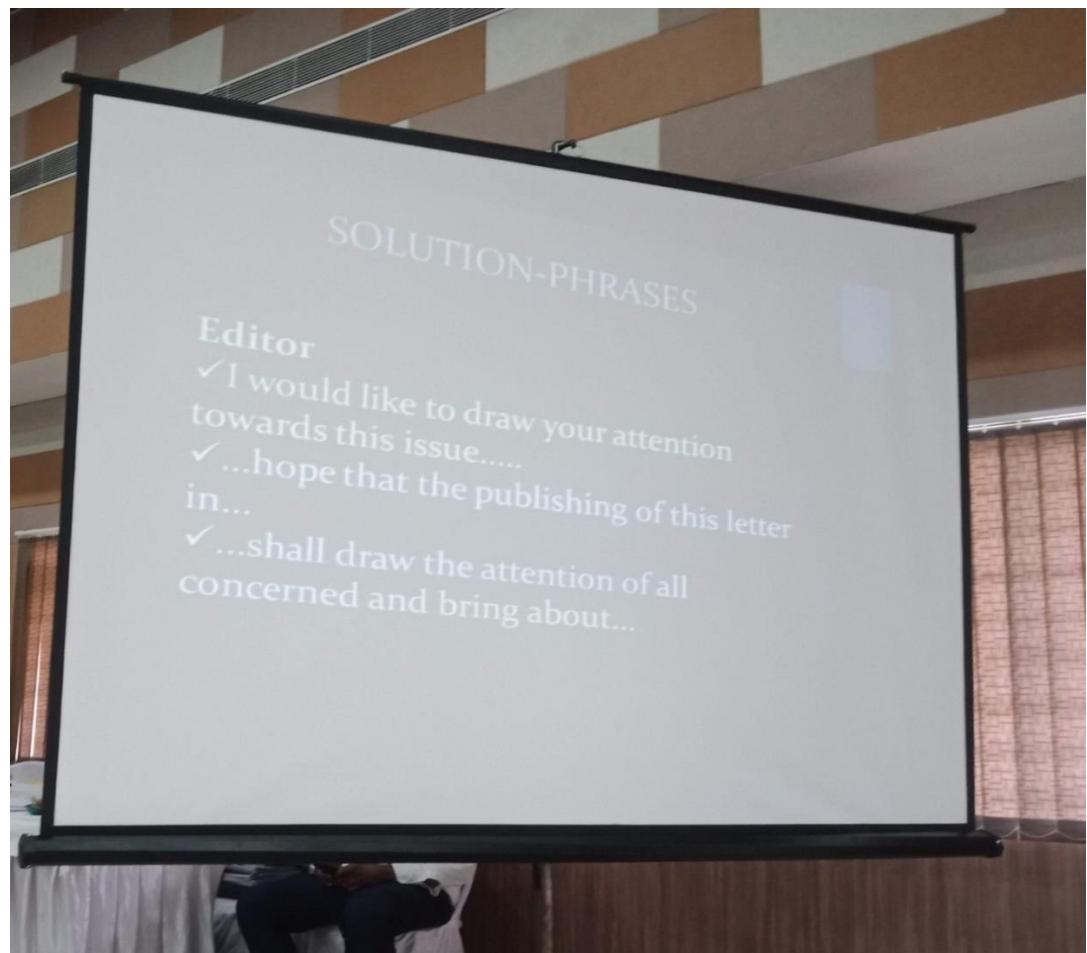
Official CBSE Format



Letter to the Editor

A Letter to the Editor may be written to the editor of a newspaper or a magazine. It is written to highlight a social issue or problem. It can also be written in order to get it published in the said medium.

Phrases for writing the three paragraphs



Q1. You are Radha G, member of NGO AWAAZ. Write a letter to the editor of a national daily for a public movement to clean the Yamuna river. (You must introduce yourself, describe how the people are to be blamed for polluting the river and suggest the need for installing water treatment plant to clean the river).

33, Jal Vihar Wazirabad, New Delhi – 33

23 April 2020

The Editor Hindustan Times New Delhi.

Subject: Need for people's movement for a clean Yamuna Dear Sir

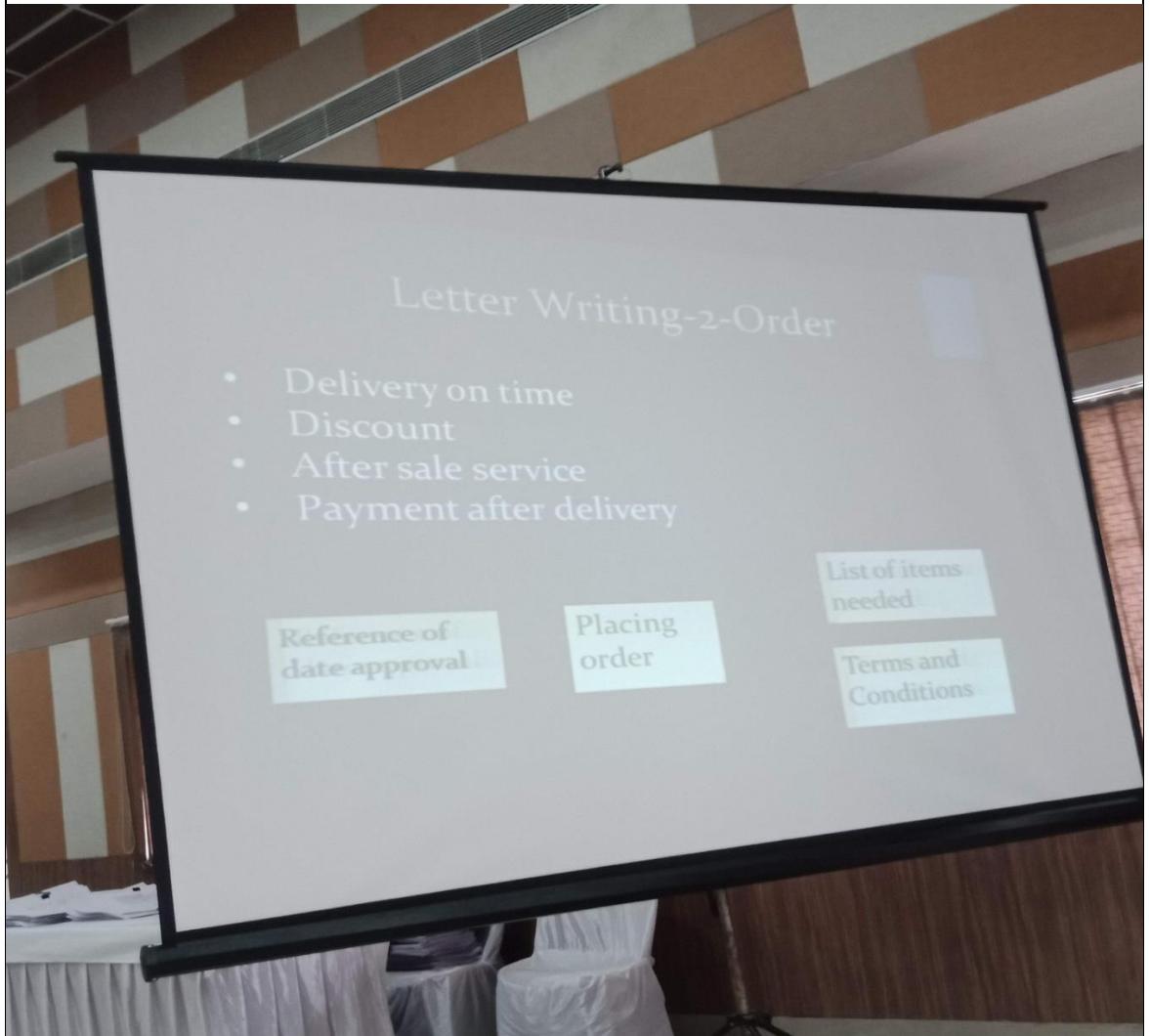
I am Radha G, member of NGO AWAAZ. I am writing to you in order to highlight the deteriorating condition of river Yamuna. (1st para)

The city of Delhi is getting contaminated water from river Yamuna. The residents are to be blamed for this. They pollute the river with garbage, sewage and filth. The river water is full of bacteria, plastic, chemicals and other waste materials. It is unfit for consumption. (2nd para)

The people have been demanding a Water Treatment plant. The authorities have not yet responded to the repeated requests.
I request you to highlight the problem in your newspaper and arouse public interest. We all need to get together in order to get the plant set up in the area. (3rd para)

Thank You Yours sincerely Radha G
Member AWAAZ.

Letter of Placing Order



Letter for placing order of sports items:

Blossom Public School Ghaziabad
Pin code – 123456 February 25 2020
Sharma and Sharma Group New Delhi
Pin code- 100111

Subject: Purchase of Sports Items

Dear Sir

It is my pleasure to communicate to you that our school wishes to place an order for sports items in bulk with your company. These items will be used in the activities room, gym, and sports ground of the school starting from the academic session of the year 2020-21.

List of the items along with their quantity is given below: (1st para)

Name of the Items	Pieces Needed
Willow bats	25
Wicket keeping pads	30
Batting pads	45
Match ball (red)	60
Match ball (white)	70
Football	30
Batting gloves	35 (2nd para)

Kindly, deliver the order on time, by ensuring that all the items are taken from the fresh lot. Payment of the entire purchase will be done digitally. It would be great if you could share the time when all the items will be delivered at our address.

Looking forward to hearing from you. (3rd para)

Yours truly
Ankit
Sports Incharge

Home Assignment to be done in the note – book.

Question:

Gandhinagar is a thickly populated locality inhabited mainly by the working class people. Unfortunately, there is no Amul milk booth in the locality. Write a letter in 100 - 120 words to the editor of a local daily drawing the attention of the authorities to the problem faced by the people, requesting them to open a milk booth. You are Sham / Shobha, 4, Gandhinagar, Mumbai.

Question:

Write a letter to the Sales Manager, MMS Books, Ashok Vihar, Delhi, placing order for five titles of books that you need for educational purpose. You are Sanjeev/Sanjana, 12/CA, Model Town, Kurukshetra.

SOCIAL SCIENCE	<p>Economics : Development Read the chapter and underline the key words and find out the meanings. Answer the following questions in the Economics note book.</p> <ol style="list-style-type: none"> 1) Define the term development. 2) What is average income? 3) What is Human Development index? 4) What is national Development? 5) Which criterion is used by the World Bank to classify different countries? 6) In what respects is the criterion used by the UNDP for measuring development different from the one used by the World Bank? 7) why is Kerala considered more developed than Punjab despite lower per capita income ? 8) State two components of Human Development Index. 9) List a few examples of environmental degradation that you may have observed around you. 10) What is Sustainable Development?
COMPUTER	<p><u>Ch.3 Introduction to HTML5</u></p> <ol style="list-style-type: none"> 1. Read the chapter Carefully. 2. Go through the Tricky Terms given at the back of the chapter. 3. Complete Application based Type Question in your notebook <p><u>Ch.4 Basic HTML5 Elements</u></p> <ol style="list-style-type: none"> 1. Read the chapter Carefully. 2. Go through the Tricky Terms given at the back of the chapter. 3. Complete Application Based Type Question in your notebook. <p><u>Ch.5 Images, Tables and links in HTML5</u></p> <ol style="list-style-type: none"> 1. Read the chapter Carefully. 2. Go through the Tricky Terms given at the back of the chapter. 3. Complete Application Based Type Question in your notebook.

Dr. Rachana Nair
 Director Academics.