KENDRIYA VIDYALAYA MIAO

HOLIDAYS HOMEWORK

CLASS – VI

CHAPTER 1

Que. Write the definition of the following :

Ingredients, Edible, Nectar, sprouted seed, Herbivore, Carnivore, Omnivore.

Page no. 10

Q1. Do you find that all living beings need the same kind of food?

Q2. Name five plants and their parts that we eat .

Q3. Match the items given in Column A with that in Column B

Column A	Column B
Milk, curd, *paneer*, *ghee*	eat other animals
Spinach, cauliflower, carrot	eat plants and plant products
Lions and tigers	are vegetables
Herbivores	are all animal products

Q4. Fill up the blanks with the words given:

herbivore, plant, milk, sugarcane, carnivore

(a) Tiger is a _____ because it eats only meat.

(b) Deer eats only plant products and so, is called _____.

(c) Parrot eats only _____ products.

(d) The _____ that we drink, which comes from cows, buffaloes and goats is an animal product.

(e) We get sugar from _____.

ACTIVITIES:

Q1. You must have seen a garden lizard around your home. Next time whenever you see it, observe carefully and find out what it takes for food. Is the food different from that of a house lizard? Write a list of food item taken as a food by lizard.

Q2. Make a list (with pictures, when possible) of food items generally taken by people of different regions of India. Prepare a chart state wise.

Q3. Find out the names of plants that grow in water and which are eaten as food. Write a list in your notebook.

CHAPTER 2

Que. Write the definition of the following:
Nutrients, Balanced diet, carbohydrates, fats, vitamins, proteins, deficiency diseases.

Page no. 17
1. Name the major nutrients in our food.
2. Name the following:
(a) The nutrients which mainly give energy to our body.
(b) The nutrients that are needed for the growth and maintenance of our body.
(c) A vitamin required for maintaining good eyesight.
(d) A mineral that is required for keeping our bones healthy.
3. Name two foods each rich in:
(a) Fats
(b) Starch
(c) Dietary fibre
(d) Protein
4. Tick (√) the statements that are correct.
(a) By eating rice alone, we can fulfill nutritional requirement of our body. ( )
(b) Deficiency diseases can be prevented by eating a balanced diet. ( )
(c) Balanced diet for the body should contain a variety of food items. ( )
(d) Meat alone is sufficient to provide all nutrients to the body. ( )
5. Fill in the blanks.
(a) _____ is caused by deficiency of Vitamin D.
(b) Deficiency of _____ causes a disease known as beri-beri.
(c) Deficiency of Vitamin C causes a disease known as _____.
(d) Night blindness is caused due to deficiency of _____ in our food.

ASSIGNMENT

- **Prepare a chart on various components of food.**
- **Prepare a chart of Table 2.3 – Some diseases/disorders caused by deficiency of vitamins and minerals.**

CHAPTER 3

Que. Write the following definitions:
Fabric, Fibre, Knitting, Spinning, Weaving, yarn.

Page no. 24
Q1. Classify the following fibres as natural or synthetic:
nylon, wool, cotton, silk, polyester, jute

Q2. State whether the following statements are true or false:
a) Yarn is made from fibres.
b) Spinning is a process of making fibres.
c) Jute is the outer covering of coconut.
d) The process of removing seed from cotton is called ginning.
e) Weaving of yarn makes a piece of fabric.
f) Silk fibre is obtained from the stem of a plant.
g) Polyester is a natural fibre.

Q3. Fill in the blanks:
a) Plant fibres are obtained from_____ and _____ .
b) Animals fibres are _____ and _____ .
Q4. From which parts of the plant cotton and jute are obtained?
Q5. Name two items that are made from coconut fibre.
Q6. Explain the process of making yarn from fibre.

ACTIVITY:

- **Prepare a list of synthetic and natural fibre. Paste the synthetic and natural fibre available in your home to your note book.**
- **Do you know that famous Sufi Saint and poet Kabir, was a weaver? Find out about his life and teachings.**

KENDRIYA VIDYALAYA MIAO

HOLIDAYS HOMEWORK

Science, CLASS – VII

CHAPTER 1

Que. Write the definition of the following:

Nutrient, Nutrition, Autotrophic, Chlorophyll, Heterotrophs, Heterotrophic, Saprotrophs, Saprotrophic, Insectivorous, Host, Parasite, Photosynthesis, Stomata, cell, cell membrane, nucleus , cytoplasm.

Page no. 9,10

Q1. Why do organisms need to take food?

Q2. Distinguish between a parasite and a saprotroph.

Q3. How would you test the presence of starch in leaves?

Q4. Give a brief description of the process of synthesis of food in green plants.

Q5. Show with the help of a sketch that the plants are the ultimate source of food.

Q6. Fill in the blanks:

(a) Green plants are called _____ since they synthesise their own food.

(b) The food synthesised by the plants is stored as _____.

(c) In photosynthesis solar energy is captured by the pigment called _____.

(d) During photosynthesis plants take in _____ and release _____.

Q7. Name the following:

(i) A parasitic plant with yellow, slender and tubular stem.

(ii) A plant that has both autotrophic and heterotrophic mode of nutrition.

(iii) The pores through which leaves exchange gases.

Q8. Tick the correct answer:

(a) Amarbel is an example of:

(i) autotroph (ii) parasite (iii) saprotroph (iv) host

(b) The plant which traps and feeds on insects is:

(i) Cuscuta (ii) china rose (iv) pitcher plant (iv) rose

Q9. Match the items given in Column I with those in Column II:

Column I	Column II
Chlorophyll	Bacteria
Nitrogen	Heterotrophs
Amarbel	Pitcher plant
Animals	Leaf
Insects	Parasite

Q10. Mark 'T' if the statement is true and 'F' if it is false:
(i) Carbon dioxide is released during photosynthesis. (T/F)
(ii) Plants which synthesise their food themselves are called saprotrophs. (T/F)
(iii) The product of photosynthesis is not a protein. (T/F)
(iv) Solar energy is converted into chemical energy during photosynthesis. (T/F)
11. Choose the correct option from the following:
Which part of the plant takes in carbon dioxide from the air for photosynthesis?
(i) Root hair (ii) Stomata (iii) Leaf veins (iv) Sepals
12. Choose the correct option from the following:
Plants take carbon dioxide from the atmosphere mainly through their:
(i) roots (ii) stem (iii) flowers (iv) leaves

ACTIVITIES:
Q1. Try growing a sweet potato just in water. Describe your experiment and observations.

CHAPTER 2
Que. Write the definition of the following:
Absorption, Amoeba, Buccal cavity, Cellulose, Assimilation, Ingestion, Digestion, Egestion, Fatty acid, Food, vacuole, Gall bladder, Glycerol, Milk teeth, Permanent teeth, Incisor, Canine, Premolar, Molar, Oesophagus, Liver, Bile, Pancreas, Pseudopodia, Rumen Ruminant, Rumination, Salivary glands, Villi, Saliva.

Page no.
Q1. Fill in the blanks:
(a) The main steps of nutrition in humans are _____, _____, _____, _____ and _____.
(b) The largest gland in the human body is _____.
(c) The stomach releases hydrochloric acid and _____ juices which act on food.
(d) The inner wall of the small intestine has many finger-like outgrowths called _____.
(e) Amoeba digests its food in the _____ .

2. Mark T if the statement is true and F if it is false:
(a) Digestion of starch starts in the stomach. (T/F)
(b) The tongue helps in mixing food with saliva. (T/F)
(c) The gall bladder temporarily stores bile. (T/F)
(d) The ruminants bring back swallowed grass into their mouth and chew it for some time. (T/F)

3. Tick () mark the correct answer in each of the following:
(a) Fat is completely digested in the
(i) stomach (ii) mouth (iii) small intestine (iv) large intestine
(b) Water from the undigested food is absorbed mainly in the
(i) stomach (ii) foodpipe (iii) small intestine (iv) large intestine

4. Match the items of Column I with those given in Column II:

Column I	**Column I Column II**
Food components	Food components Product(s) of digestion
Carbohydrates	Carbohydrates Fatty acids and glycerol
Proteins	Sugar
Fats	Amino acids

5. What are villi? What is their location and function?
6. Where is the bile produced? Which component of the food does it help to digest?
7. Name the type of carbohydrate that can be digested by ruminants but not by humans. Give the reason also.
8. Why do we get instant energy from glucose?
9. Which part of the digestive canal is involved in:
(i) absorption of food _____.
(ii) chewing of food _____.
(iii) killing of bacteria _____.
(iv) complete digestion of food _____.
(v) formation of faeces _____.
10. Write one similarity and one difference between the nutrition in amoeba and human beings.
11. Match the items of Column I with suitable items in Column II

Column I	**Column I Column II**
(a) Salivary gland	**(i) Bile juice secretion**
(b) Stomach	**(ii) Storage of undigested food**
(c) Liver	**(iii) Saliva secretion**
(d) Rectum	**(iv) Acid release**
(e) Small intestine	**(v) Digestion is completed**
(f) Large intestine	**(vi) Absorption of water**

12. Draw and Label Fig. 2.11 of the digestive system.
13. Can we survive only on raw, leafy vegetables/grass? Discuss.

ASSIGNMENT

- **Q. Find out what vitamins are and get the following information.**
  (i) Why are vitamins necessary in the diet?
  (ii) Which fruits or vegetables should be eaten regularly to get vitamins?
  Write a one-page note on the information collected by you. You may take help of a doctor, a dietician, your teacher or any other person, or from any other source.

3. Collect data from your friends, neighbours and classmates to know more about milk teeth.
Tabulate your data. One way of doing it is given below:

S. No.	Age at which first tooth fell	Age at which Last tooth fell	NO. of teeth lost	No. oof teeth replaced

Find out from at least ten children in your neighbourhood and find the average age at which children lose the milk teeth. You may take help of your friends.

CHAPTER 3
Que. Write the definition of the following:
Cocoon, Fleece, Reeling, Silk moth, Silkworm, Sorting, Scouring, Sericulture, Shearing

1. You must be familiar with the following nursery rhymes:
(i) 'Baa baa black sheep, have you any wool.'
(ii) 'Mary had a little lamb, whose fleece was white as snow.'
Answer the following:
(a) Which parts of the black sheep have wool?
(b) What is meant by the white fleece of the lamb?
2. The silkworm is (a) a caterpillar, (b) a larva. Choose the correct option.
(i) a (ii) b (iii) both a and b (iv) neither a nor b.
3. Which of the following does not yield wool?
(i) Yak (ii) Camel (iii) Goat (iv) Woolly dog

4. What is meant by the following terms?
(i) Rearing (ii) Shearing (iii) Sericulture
5. Given below is a sequence of steps in the processing of wool. Which are the missing steps? Add them.
Shearing, _____, sorting, _____, _____, _____.
6. Make sketches of the two stages in the life history of the silk moth which are directly related to the production of silk.

7. Out of the following, which are the two terms related to silk production?
Sericulture, floriculture, moriculture, apiculture and silviculture.
Hints: (i) Silk production involves cultivation of mulberry leaves and rearing silkworms.
(ii) Scientific name of mulberry is Morus alba.

8. Match the words of Column I with those given in Column II:

Column I	Column II
1. Scouring	(a) Yields silk fibres
2. Mulberry leaves	(b) Wool yielding animal
3. Yak	(c) Food of silk worm
4. Cocoon	(d) Reeling
	(e) Cleaning sheared skin

9. Given below is a crossword puzzle based on this lesson. Use hints to fill in the blank spaces with letters that complete the words.

Down
(D) 1 : Thorough washing
2 : Animal fibre
3 : Long thread like structure

Across
(A) 1 : Keeps warm
2 : Its leaves are eaten by silkworms
3 : Hatches from egg of moth

ACTIVITY :

- **Q. Paheli wanted to buy a silk frock and went to the market with her mother. There they found that the artificial (synthetic) silk was much cheaper and wanted to know why. Do you know why? Find out.**
- **Q. Someone told Paheli that an animal called 'Vicuna' also gives wool. Can you tell her where this animal is found? Look for this in a dictionary or an encyclopaedia.**

- **Q. When handloom and textile exhibitions are held, certain stalls display real moths of various varieties of silk and their life histories. Try and visit these stalls with elders or teachers and see these moths and stages of their life history.**

KENDRIYA VIDYALAYA MIAO

HOLIDAYS HOMEWORK

Science, CLASS – VIII

CHAPTER 1

Que. Write the definition of the following:

AGRICULTURAL PRACTICES, ANIMAL HUSBANDRY, CROP, FERTILISER, HARVESTING, IRRIGATION, KHARIF, MANURE, PLOUGH, RABI, SEEDS, SOWING, STORAGE, THRESHING, WEEDS, WEEDICIDE, WINNOWING.

Page no. 13,14,15

Q1. Select the correct word from the following list and fill in the blanks.

float, water, crop, nutrients, preparation

(a) The same kind of plants grown and cultivated on a large scale at a place is called _____.

(b) The first step before growing crops is _____ of the soil.

(c) Damaged seeds would _____ on top of water.

(d) For growing a crop, sufficient sunlight and _____ and _____ from the soil are essential.

2. Match items in column A with those in column B.

A	B
(i) Kharif crops (ii) Rabi crops (iii) Chemical fertilisers	(a) Food for cattle (b) Urea and super phosphate (c) Animal excreta, cow dung
urine and plant waste (iv) Organic manure	(d) Wheat, gram, pea (e) Paddy and maize

3. Give two examples of each.

(a) Kharif crop

(b) Rabi crop

4. Write a paragraph in your own words on each of the following.

(a) Preparation of soil (b) Sowing

(c) Weeding (d) Threshing

5. Explain how fertilisers are different from manure.

6. What is irrigation? Describe two methods of irrigation which conserve water.

7. If wheat is sown in the kharif season, what would happen? Discuss.

8. Explain how soil gets affected by the continuous plantation of crops in a field.

9. What are weeds? How can we control them?

10. Arrange the following boxes in proper order to make a flow chart of Sugarcane crop production.

11. Complete the following word puzzle with the help of clues given below.

Down

1. Providing water to the crops.

2. Keeping crop grains for a long time under proper conditions.

5. Certain plants of the same kind grown on a large scale.

Across

3. A machine used for cutting the matured crop.

4. A rabi crop that is also one of the pulses.

6. A process of separating the grain from chaff.

ACTIVITIES:

Q1. Collect different types of seeds and put them in small bags. Attach these bags in a your note book with the help of tape and label them.

Q2. Project Work

With the help of web links given below find about a farm, nursery or a garden. Gather information about

(i) importance of seed selection.

(ii) method of irrigation.

(iii) effect of extreme cold and extreme hot weather on the plants.

(iv) effect of continuous rain on the plants.

(v) fertilisers/manure used.

For more information, visit :

- **www.krishiworld.com/html/balanced fertiliser. html.**
- **www.ikis.com/links/ap.cultivation.html**

CHAPTER 2

Que. Write the definition of the following:
CONDUCTOR, DISPLACEMENT REACTION, DUCTILITY, MALLEABILITY, SONOROUS, METALS, METALLOIDS, NON-METALS.

Page no. 53,54,55

1 WHICH of the following can be beaten into thin sheets?
(a) Zinc (b) Phosphorus (c) Sulphur (d) Oxygen
2. Which of the following statements is correct?
(a) All metals are ductile.
(b) All non-metals are ductile.
(c) Generally, metals are ductile.
(d) Some non-metals are ductile.

3. Fill in the blanks :
(a) Phosphorus is very non-metal.
(b) Metals are conductors of heat and .
(c) Iron is reactive than copper.
(d) Metals react with acids to produce gas.
4. Mark 'T' if the statement is true and 'F' if it is false.
(a) Generally, non-metals react with acids. ( )
(b) Sodium is a very reactive metal. ( )
(c) Copper displaces zinc from zinc sulphate solution. ( )
(d) Coal can be drawn into wires. ( )
5. Some properties are listed in the following Table. Distinguish between metals and non-metals on the basis of these properties :

PROPERTIES	METALS	NON-METALS
1. Appearance		
2. Hardness		
3. Malleability		
4. Ductility		
5. Heat Conduction		
6. Conduction Of Electricity		

6. Give reasons for the following :
(a) Aluminium foils are used to wrap food items.
(b) Immersion rods for heating liquids are made up of metallic substances.
(c) Copper cannot displace zinc from its salt solution.
(d) Sodium and potassium are stored in kerosene.

7. Can you store lemon pickle in an aluminium utensil? Explain.

8. In the following Table some substances are given in Column I. In Column II

some uses are given. Match the items in column I with those in Column II.

Column I	Column II
(i) Gold	(a) Thermometers
(ii) Iron	(b) Electric wire
(iii) Aluminium	(c) Wrapping food
(iv) Carbon	(d) Jewellery
(v) Copper	(e) Machinery

9. What happens when?
(a) Dilute sulphuric acid is poured on a copper plate?
(b) Iron nails are placed in copper sulphate solution?
Write word equations of the reactions involved.

10. Saloni took a piece of burning charcoal and collected the gas evolved in a test tube.
(a) How will she find the nature of the gas?
(b) Write down word equations of all the reactions taking place in this process.

11. One day Reeta went to a jeweller's shop with her mother. Her mother gave Old gold jewellery to the goldsmith to polish. Next day when they brought the jewellery back, they found that there was a slight loss in its weight. Can you suggest a reason for the loss in weight?

ASSIGNMENT

- Prepare a Prepare Index Cards for any four metals and four non-metals. The card should have information like name of metal/non-metal; its physical properties, chemical properties and its uses.

- Prepare a Find out the locations of the deposits of iron, aluminium and zinc in India. Mark these in an outline map of India. In which form are the deposits found? Discuss in the class.

- Discuss with your parents/neighbours/goldsmiths why gold is preferred for making jewellery.

KENDRIYA VIDYALAYA MIAO

HOLIDAYS HOMEWORK

CLASS – IX

CHAPTER 1

Page no. 3

Q1. Which of the following are matter?

Chair, air, love, smell, hate, almonds, thought, cold, colddrink, smell of perfume.

Q2. Give reasons for the following observation:

The smell of hot sizzling food reaches you several metres away, but to get the smell from cold food you have to go close.

Q3. A diver is able to cut through water in a swimming pool. Which property of matter does this observation show?

Q4. What are the characteristics of the particles of matter?

Page no. 6

Q1. The mass per unit volume of a substance is called density.

(density = mass/volume).

Arrange the following in order of increasing density – air, exhaust from chimneys, honey, water, chalk, cotton and iron.

Q2. (a) Tabulate the differences in the characterisitcs of states of matter.

(b) Comment upon the following: rigidity, compressibility, fluidity, filling a gas container, shape, kinetic energy and density.

Q3. Give reasons

(a) A gas fills completely the vessel in which it is kept.

(b) A gas exerts pressure on the walls of the container.

(c) A wooden table should be called a solid.

(d) We can easily move our hand in air but to do the same through a solid block of wood we need a karate expert.

Q4. Liquids generally have lower density as compared to solids. But you must have observed that ice floats on water. Find out why.

Page no. 9

Q1. Convert the following

temperature to celsius scale:

a. 300 K b. 573 K.

Q2. What is the physical state of water at:

a. 250ºC b. 100ºC ?

Q3. For any substance, why does the temperature remain constant during the change of state?

Q4. Suggest a method to liquefy atmospheric gases.

Page no. 10

Q1. Why does a desert cooler cool better on a hot dry day?
Q2. How does the water kept in an earthen pot (matka) become cool during summer?
Q3. Why does our palm feel cold when we put some acetone or petrol or perfume on it?
Q4. Why are we able to sip hot tea or milk faster from a saucer rather than a cup?
Q5. What type of clothes should we wear in summer?
Page no.12
Exercises
Q1. Convert the following temperatures to the celsius scale.
(a) 293 K (b) 470 K.
Q2. Convert the following temperatures to the Kelvin scale.
(a) 25°C (b) 373°C.
Q3. Give reason for the following observations.
(a) Naphthalene balls disappear with time without leaving any solid.
(b) We can get the smell of perfume sitting several metres away.
Q4. Arrange the following substances in increasing order of forces of attraction between the particles— water, sugar, oxygen.
Q5. What is the physical state of water at—
(a) 25°C (b) 0°C (c) 100°C ?
Q6. Give two reasons to justify—
(a) water at room temperature is a liquid.
(b) an iron almirah is a solid at room temperature.
Q7. Why is ice at 273 K more effective in cooling than water at the same temperature?
Q8. What produces more severe burns, boiling water or steam?
Q9. Name A,B,C,D,E and F in the following diagram showing change in its state.
Page no. 13
ACTIVITY
⍰ Prepare a model to demonstrate movement of particles in solids, liquids and gases.
CHAPTER 5
Page no. 59
Q1. Who discovered cell and how?
Q2. Why the cell is called structural and functional unit of life?
Page no. 61
Q1. How do substances like CO_2 and water move in and out of the cell? Discuss.
Q2. Why is the plasma membrane called a selectively permeable membrane?
Page no. 63
1. Fill in the gaps in the following table illustrating differences between prokaryotic and eukaryotic cells.
Prokaryotic Cell Eukaryotic Cell

1. Size : generally small (1-10 ⍰m) 1 ⍰m = 10–6 m	1.Size: generally large (5-100 ⍰m)
2. Nuclear region: _____ _____ and known as__	2. Nuclear region: well defined and surrounded by a nuclear membrane
3. Chromosome: Single	3. More than one chromosome
4. Membrane-bound cell organelles absent	4. _____ _____ _____

Page no. 65

Q1. Can you name the two organelles we have studied that contain their own genetic material?

Q2. If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen?

Q3. Why are lysosomes known as suicide bags?

Q4. Where are proteins synthesised inside the cell?

Page no. 66 &67

Q1Make a comparison and write down ways in which plant cells are different from animal cells.

Q2. How is a prokaryotic cell different from a eukaryotic cell?

Q3. What would happen if the plasma membrane ruptures or breaks down?

4. What would happen to the life of a cell if there was no Golgi apparatus?

5. Which organelle is known as the powerhouse of the cell? Why?

6. Where do the lipids and proteins constituting the cell membrane get synthesised?

7. How does an Amoeba obtain its food?

8. What is osmosis?

9. Carry out the following osmosis experiment:

Take four peeled potato halves and scoos each one out to make potato cups. One of these potato cups should be made from a boiled potato. Put each potato cup in a trough containing water.

Now,

(a) Keep cup A empty

(b) Put one teaspoon sugar in cup B

(c) Put one teaspoon salt in cup C

(d) Put one teaspoon sugar in the boiled potato cup D.

Keep these for two hours. Then observe the four potato cups and answer the following:

(i) Explain why water gathers in the hollowed portion of B and C.

(ii) Why is potato A necessary for this experiment?

(iii) Explain why water does not gather in the hollowed out portion of A and D.

ASSIGNMENT

- **ROLL NO 1 TO 10 WILL MAKE CHART OF PLANT CELL.**
- **ROLL NO 10 TO 20 WILL MAKE CHART OF ANIMAL CELL.**
- **ROLL NO 20 TO 30 WILL MAKE CHART OF PLANT CELL.**
- **ROLL NO 30 TO 40 WILL MAKE CHART OF ANIMAL CELL.**

WEB LINKS FOR HELP IN DOING HOME WORK

CHAPTER 1

https://www.youtube.com/watch?v=-9aGVrvPqzE

CHAPTER 5

https://www.youtube.com/watch?v=x_cVxG6DNiM

KENDRIYA VIDYALAYA MIAO

HOLIDAYS HOMEWORK

CLASS – X

CHAPTER 1

Page no. 6

Q1. Why should a magnesium ribbon be cleaned before burning in air?

2. Write the balanced equation for the following chemical reactions.

(i) Hydrogen + Chlorine → Hydrogen chloride

(ii) Barium chloride + Aluminium sulphate → Barium sulphate + Aluminium chloride

(iii) Sodium + Water → Sodium hydroxide + Hydrogen

3. Write a balanced chemical equation with state symbols for the following reactions.

(i) Solutions of barium chloride and sodium sulphate in water react to give insoluble barium sulphate and the solution of sodium chloride.

(ii) Sodium hydroxide solution (in water) reacts with hydrochloric acid solution (in water) to produce sodium chloride solution and water.

Page no. 10

1. A solution of a substance 'X' is used for white washing.

(i) Name the substance 'X' and write its formula.

(ii) Write the reaction of the substance 'X' named in (i) above with water.

2. Why is the amount of gas collected in one of the test tubes in Activity 1.7 double of the amount collected in the other? Name this gas.

Page no. 13

1. Why does the colour of copper sulphate solution change when an iron nail is dipped in it?

2. Give an example of a double displacement reaction other than the one given in Activity 1.10.

3. Identify the substances that are oxidised and the substances that are reduced in the following reactions.

(i) $4Na(s) + O_2(g) \rightarrow 2Na_2O(s)$

(ii) $CuO(s) + H_2(g) \rightarrow Cu(s) + H_2O(l)$

Page no. 10

1. Which of the statements about the reaction below are incorrect?

$2PbO(s) + C(s) \rightarrow 2Pb(s) + CO_2(g)$

(a) Lead is getting reduced.

(b) Carbon dioxide is getting oxidised.

(c) Carbon is getting oxidised.

(d) Lead oxide is getting reduced.

(i) (a) and (b)

(ii) (a) and (c)

(iii) (a), (b) and (c)

(iv) all

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

The above reaction is an example of a

(a) combination reaction.

(b) double displacement reaction.

Chemical Reactions and Equations 15

(c) decomposition reaction.

(d) displacement reaction.

3. What happens when dilute hydrochloric acid is added to iron fillings? Tick the correct answer.

(a) Hydrogen gas and iron chloride are produced.

(b) Chlorine gas and iron hydroxide are produced.

(c) No reaction takes place.

(d) Iron salt and water are produced.

4. What is a balanced chemical equation? Why should chemical equations be balanced?

5. 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 sulpur 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 give potassium hydroxide and hydrogen gas.

6. Balance the following chemical equations.

(a) $HNO_3 + Ca(OH)_2 \rightarrow Ca(NO_3)_2 + H_2O$

(b) $NaOH + H_2SO_4 \rightarrow Na_2SO_4 + H_2O$

(c) $NaCl + AgNO_3 \rightarrow AgCl + NaNO_3$

(d) $BaCl_2 + H_2SO_4 \rightarrow BaSO_4 + HCl$

7. Write the balanced chemical equations for the following reactions.
(a) Calcium hydroxide + Carbon dioxide → Calcium carbonate + Water
(b) Zinc + Silver nitrate → Zinc nitrate + Silver
(c) Aluminium + Copper chloride → Aluminium chloride + Copper
(d) Barium chloride + Potassium sulphate → Barium sulphate + Potassium chloride

8. Write the balanced chemical equation for the following and identify the type of reaction in each case.
(a) Potassium bromide(aq) + Barium iodide(aq) → Potassium iodide(aq) + Barium bromide(s)
(b) Zinc carbonate(s) → Zinc oxide(s) + Carbon dioxide(g)
(c) Hydrogen(g) + Chlorine(g) → Hydrogen chloride(g)
(d) Magnesium(s) + Hydrochloric acid(aq) → Magnesium chloride(aq) + Hydrogen(g)
9. What does one mean by exothermic and endothermic reactions? Give examples.
10. Why is respiration considered an exothermic reaction? Explain.
11. Why are decomposition reactions called the opposite of combination reactions? Write equations for these reactions.

ACTIVITY

- **Prepare a chart on each type of chemical reaction along with one chemical equation, roll no wise.**

For example roll no. 1 will prepare combination reaction, Roll no. 2 will prepare decomposition reaction, roll no. 3 will prepare displacement reaction, roll no. 4 will prepare double displacement reaction, roll no. 5 will prepare oxidation and reduction reaction. Next roll number will start with again combination reaction and so on.

CHAPTER 6

Page no. 59

1. Why is diffusion insufficient to meet the oxygen requirements of multicellular organisms like humans?

2. What criteria do we use to decide whether something is alive?

3. What are outside raw materials used for by an organism?

4. What processes would you consider essential for maintaining life?

Page no. 95

Q1. How do substances like CO2 and water move in and out of the cell? Discuss.

Q2. Why is the plasma membrane called a selectively permeable membrane?

Page no. 101

1. What are the differences between autotrophic nutrition and heterotrophic nutrition?

2. Where do plants get each of the raw materials required for photosynthesis?

3. What is the role of the acid in our stomach?

4. What is the function of digestive enzymes?

5. How is the small intestine designed to absorb digested food?

Page no. 105

1. What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration?

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

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

4. How are the lungs designed in human beings to maximise the area for exchange of gases?

Page no. 110

1. What are the components of the transport system in human beings?
What are the functions of these components?

2. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds?

3. What are the components of the transport system in highly organised plants?

4. How are water and minerals transported in plants?

5. How is food transported in plants?

Page no. 112

1. Describe the structure and functioning of nephrons.

2. What are the methods used by plants to get rid of excretory products?
3. How is the amount of urine produced regulated?

Page no. 113
1. The kidneys in human beings are a part of the system for
(a) nutrition.
(b) respiration.
(c) excretion.
(d) transportation.
2. The xylem in plants are responsible for
(a) transport of water.
(b) transport of food.
(c) transport of amino acids.
(d) transport of oxygen.
3. The autotrophic mode of nutrition requires
(a) carbon dioxide and water.
(b) chlorophyll.
(c) sunlight.
(d) all of the above.
4. The breakdown of pyruvate to give carbon dioxide, water and energy takes place in
(a) cytoplasm.
(b) mitochondria.
(c) chloroplast.
(d) nucleus.
5. How are fats digested in our bodies? Where does this process take place?
6. What is the role of saliva in the digestion of food?
7. What are the necessary conditions for autotrophic nutrition and what are its byproducts?
8. What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration.
9. How are the alveoli designed to maximise the exchange of gases?
10. What would be the consequences of a deficiency of haemoglobin in our bodies?
11. Describe double circulation in human beings. Why is it necessary?
12. What are the differences between the transport of materials in xylem and phloem?
13. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structure and functioning.

ASSIGNMENT

- ROLL NO 1 TO 5 WILL MAKE COLOURFUL CHART OF CROSS SECTION OF LEAF, FIGURE 6.1 AND 6.3.
- ROLL NO 6 TO 10 WILL MAKE CHART OF HUMAN ALIMENTARY CANAL, FIGURE 6.6.
- ROLL NO 11 TO 15 WILL MAKE CHART OF BREAKDOWN OF GLUCOSE FIG 6.8.
- ROLL NO 16 TO 20 WILL MAKE CHART OF HUMAN RESPIRATORY SYSTEM FIG 6.9.
- ROLL NO 21 TO 25 WILL MAKE CHART OF HUMAN HEART FIG 6.10 , 6.11
- ROLL NO 26 TO 30 WILL MAKE CHART OF EXCRETORY SYSTEM OF HUMAN FIG 6.13.
- ROLL NO 31 TO 35 WILL MAKE CHART OF STRUCTURE OF NEPHRON FIG 6.14.