

## NUTRITION IN PLANTS

**( 1 mark questions)**

1. Define nutrition.
2. Define Photosynthesis.
3. Write equation for photosynthesis.
4. What are the raw materials needed for photosynthesis?
5. Name the cells that make stomata.

**(2 mark questions)**

1. Why do insectivorous plants feed on insects?
2. How do Rhizobia increase the fertility of the soil?
3. Draw a mushroom and bread mould.

**( 3mark questions)**

1. "Life would be impossible without photosynthesis". Justify.
2. Explain the raw materials needed for Photosynthesis. Mention their sources also.
3. Differentiate between autotrophic and heterotrophic nutrition.
4. "Mushroom is saprotroph." Justify.
5. Explain symbiotic relationship with an example.
6. Give a brief account of 'products of Photosynthesis'.

**( 5 mark questions)**

1. How does soil replenish its lost nutrients?
2. Explain Photosynthesis and the raw material needed for it.
5. Make a flow chart for " mode of nutrition".

## NUTRITION IN ANIMALS

**(1mark questions)**

1. What are three main steps in Animal nutrition?
2. What is assimilation?
3. Name any two digestive gland present in human body.
4. Which is the hardest substance present in Human Body?
5. What closes the wind pipe when we swallow food?

**(2 mark questions)**

1. Why cannot humans digest cellulose?
2. What is the importance of bile juice in our body?
3. How is the secretion of small intestine useful for digestion?
4. Justify "a crow is omnivore".
5. Define ruminants and rumination.

**(3 mark questions)**

1. What are three types of heterotrophic nutrition. Explain.
2. How is the digested food absorbed in our body?
3. Draw human digestive system and label its parts.
4. Explain with the help of diagrams " Nutrition in Amoeba".
5. Draw labelled diagram for digestive system of cow.

**(5 mark questions)**

1. "The method of taking in food is different in different organisms." Explain.
2. Write the five steps involved in the process of nutrition in man.
3. Name different types of teeth present in Human. Mention their function . Also write the function tongue.
4. Explain the process of digestion in stomach.
5. Explain the process of digestion in the small intestine.

## CHEMICAL SUBSTANCES AND PROCESSES

### (1 MARK QUESTIONS)

- Air is a/an
  - Element
  - Compound
  - Mixture
  - None of these
- The colour of copper sulphate is
  - Blue
  - Green
  - Red
  - Colourless
- The colour of ferrous sulphate is
  - Blue
  - Light Green
  - Colourless
  - Red
- Iron gets rusted on coming in contact with \_\_\_\_\_ and \_\_\_\_\_
- In neutralization reaction \_\_\_\_\_ and \_\_\_\_\_ are formed.

### (2 mark questions)

- What is a combination? Give one example
- Write the balanced chemical equation for the reaction between calcium hydroxide and sulphuric acid.
- What is a chemical equation?
  - Identify the reactants and products in the following equation.  
$$\text{Zn} + \text{H}_2\text{SO}_4 \longrightarrow \text{ZnSO}_4 + \text{H}_2$$
- Write down the symbol for the following elements
  - Sodium
  - Sulphur
  - Carbon
  - Chlorine
- What are reactants and products of a chemical reaction? Explain with an example.

### (3 mark questions)

- Write down the difference between physical and chemical change. Give one example each.
- What is a balanced chemical equation?
  - Write down the balanced chemical equation for the reaction between zinc and hydrochloric acid to form zinc chloride and hydrochloric acid.
- What do you mean by neutralization reaction? Give one example.
  - What are the products of a neutralization reaction.
- Write down the formula of the following compounds
  - Zinc sulphate
  - Aluminium sulphate
  - Ammonium nitrate
- What do you mean by displacement reaction? Give one example.

### (5 mark questions)

- Identify the type of chemical reaction in the following
  - $\text{Fe} + \text{CuSO}_4 \longrightarrow \text{FeSO}_4 + \text{Cu}$
  - $\text{CaCO}_3 \longrightarrow \text{CaO} + \text{CO}_2$
  - $2\text{H}_2 + \text{O}_2 \longrightarrow 2\text{H}_2\text{O}$
  - $2\text{NaOH} + \text{H}_2\text{SO}_4 \longrightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$
  - $\text{Zn} + \text{H}_2\text{SO}_4 \longrightarrow \text{ZnSO}_4 + \text{H}_2$
- Balance the following chemical equations.
  - $\text{Fe} + \text{HCl} \longrightarrow \text{FeCl}_2 + \text{H}_2$
  - $\text{N}_2 + \text{H}_2 \longrightarrow \text{NH}_3$
  - $\text{KOH} + \text{H}_2\text{SO}_4 \longrightarrow \text{K}_2\text{SO}_4 + \text{H}_2\text{O}$
  - $\text{H}_2 + \text{O}_2 \longrightarrow \text{H}_2\text{O}$
  - $\text{Na} + \text{O}_2 \longrightarrow \text{Na}_2\text{O}$
- What will you observe if a piece of iron nail is dipped into copper sulphate solution in a test tube.
  - Write the balanced chemical equation for it?
  - What type of reaction is it?
- Define the following terms:
    - Symbol
    - Formula
  - Write down a word or two for the following
    - Change in which one or more new substances are formed
    - Substances that participate in a chemical reaction

iii) Substances that are formed in a reaction

5. a) Define the terms:

i) Elements    ii) Compounds    iii) ions

b) Write down the symbol / formula for the following

i) Sodium    ii) Sodium ion    iii) oxide ion    iv) sodium oxide

### HEAT

#### (1 mark questions)

1. Why is the bottom of cooking utensils often kept black?
2. Which mode of heat transfer is responsible for global wind pattern ?
3. What is the normal range of human body temperature ?
4. What are the scales of the thermometer?
5. What is the mode of heat transfer in microwave oven?
6. Cooking utensils are provided with wooden handles. Why ?
7. Why is a new quilt warmer than an old one ?
8. When we hold our hand near one side of a flame, they get warmed up mainly due to:
  - a) Both conduction and convection
  - b) conduction
  - c) radiation
  - d) convection
9. The material which contract on heating is
  - a) Steel
  - b) Aluminium
  - c) Plastic
  - d) Cast iron
10. The temperature at which water freezes
  - (a) 2°C
  - (b) 0°C
  - (c) - 2°C
  - (d) 100°C
11. Why woollen clothes keeps us warm ?

#### (2 marks questions)

1. Why is mercury preferred in ordinary thermometer?
2. Give reason for the following.
  - a. Ice box are often made as double walled container.
  - b. We prefer white or light coloured clothes in winter.
3. What physical changes may take place when a substance is heated?
4. What is sea breeze. When does it occur ?
5. Why metal rims of cart has smaller diameter than wheels?
6. What do you mean by a land breeze? When does it occurs?
7. Why is the difference between laboratory thermometer and clinical thermometer
8. Describe thermal expansion.
9. Why fire brigade men use shining caps ?
10. . What is the cause of heat generation in the following situations.
  - a) We apply brakes on our fast moving car.
  - b) People often jump up and down to feel warmer in cold weather.

#### (3 marks questions)

1. Explain briefly how are winds caused?
2. Define – a) Conduction    b) Convection    c) Radiation

3. Define radiation. Give any two examples where heat is transferred by radiation. What is the name of heat energy received by radiation?

**(5 marks questions)**

1. (a) What is heat ?  
(b) What is the direction of flow of heat ?  
(c) Write four effects of heat .  
(d) Why rooms with tin roofs often hot during summer ?

## RESPIRATION IN ORGANISMS

**(1mark questions)**

1. Define respiration.
2. What is diaphragm.
3. What do you mean breathing rate?
4. Mention respiratory organ of Leech, Fish, Earthworm, Insects.
5. What is shape of diaphragm in its relaxed state?

**(2 mark questions)**

1. How is cellular respiration different from Breathing?
2. Why do we need to breath out Carbon Dioxide?
3. Define inhalation and exhalation.
4. How is Photosynthesis different from respiration?
5. What are Lenticels? What is their functions?

**(3 mark questions)**

1. Differentiate between anaerobic and aerobic respiration.
2. Why do we get muscle cramps after heavy physical exercise?
3. What are stomata? Mention their functions.
4. Explain mechanism of breathing in human beings.
5. How is the oxygen transported from Lungs to other parts of the body?

**(5 mark questions)**

1. Draw human respiratory system and label six important parts of it.
2. (a) How do small animals exchange gases?  
(b) Draw diagram to show network of Trachea in an insect.

## FABRIC FROM FIBRE

**( 1 mark question)**

1. Which of the following is a step of obtaining silk?  
a. Shearing                      b. Reeling                      c. Scouring                      d. Sorting
2. The process of taking out silk fibres from cocoons is called  
a) Reeling                      b) Shearing                      c) combing                      d) sorting
3. The silk thread is made of  
a) Carbohydrate                      b) Protein                      c) Fats                      d) Vitamins
4. Name two varieties of wool.
5. What is sericulture?

**( 2 mark question)**

1. Name two countries in which silk is produced on a large scale.
2. How do woolen clothes keep us warm during winter?
3. What is sorting ? Why is it hazardous job ?
4. What is sericulture? Which plant favors sericulture?
5. What is fleece & why shearing does not cause harm or pain to the sheep?
6. (a) Name two states of India producing wool

(b) Name two countries of world producing silk .

7. What is the role of scouring and sorting during the process of making wool from fleece?

**( 3 mark question)**

1. What is meant by \_

a) Shearing    b) scouring    c) Sorting

2. Arrange the following steps in correct sequence

Scouring , Rearing of sheep , Dyeing, Shearing , Spinning , Sorting

**( 5 mark question)**

1. Describe the various stages in the life cycle of silk moth . Draw the life cycle.

2. Write all the steps in brief for making wool from fleece .

3. Name the following:

a) Shaving of hairy dead skin of sheep.

b) Colouring the fibres

c) Separating the hairs of different textures:

d) Washing of sheared fleece

e) Making of yarn from fibres :

**FOREST**

**( 1 mark questions)**

1. Name two biotic and two abiotic components of a forest.

2. What is a food chain?

3. What is desertification?

4. What is you mean by Food web?

5. Which tree is known as "sorrow-less" tree?

**(2 mark questions)**

1. Write a food chain having four trophic levels.

2. How will the forest be affected in the absence of decomposers?

3. How is carbon cycle disturbed due to deforestation?

4. Why is Banyan tree called the immortal tree?

5. Write two uses of teak tree.

**(3 mark questions)**

1. "A forest is able to function as an independent unit." Justify.

2. Give a brief account of –(a) Amaltas (b) sal (c) Neem .

3. "Forests maintain and regulate underground water." Explain.

4. Draw any three shape of crown of trees.

5. What is the importance of forest floor layer for the forest?

**(5 mark questions)**

1. Explain briefly various layers of the forest.

2. "The shape of the crown of trees is related to the location of the trees". Explain with example.

3. Write five importance of forest to mankind.

4. What is deforestation? Write four consequences of it.

**WATER**

**( 1 mark questions)**

1. The percentage of water present in oceans & seas is

a) 97%

b) 90%

c) 79%

d) 80%

2. The percentage of water present in Glaciers and ice caps is

- a) 2%                                      b) 3%                                      c) 0.3%                                      d) 7%
3. What percentage of total water is readily available for human use?
  4. What do you mean by water table ?
  5. Name a green house gas.

**(2marks questions)**

1. What do you mean by rain-water harvesting ?
2. How is water supplied in the cities ?
3. Name and explain a technique which recharges ground water.
4. What do you mean by ground water and how can it be drawn for use ?
5. Write two ways to reduce wastage of water during irrigation .

**(3mark questions)**

1. Reeta went to the village to see her grandmother who was suffering from malaria . She noticed choked open drains near her house .She asked the villagers to clean the surroundings.
  - a) State the values displayed by Reeta.
  - b) Name 2 diseases caused by mosquitoes.
  - c) Name the place where mosquitoes breed.
2. What are the sources of groundwater? How can it be drawn for use.
3. How are open drains hazardous ? Name two water born diseases .

**(5mark questions)**

1.
  - (a) What do you mean by a sewerage system ?
  - (b) Name any two sources of sewage .
  - (c) How does ground water get contaminated ?
  - (d) Suggest one way to reduce the quantity of waste water produced in your home.
2.
  - a) What do you mean by rain – water harvesting ?
  - b) How can better management of water resources help in conservation of water.
3.
  - a. How is water supplied in cities?
  - b. Write three ways to conserve water.
  - c. How is increase in population responsible for shortage of water.(Write three points)
4.
  - (a) What is sewage ?
    - ( b. Why should we not throw chemicals in drains?
    - (c) Why should we not throw cooking oil or plastic in drains ?
    - (d) What can you do for your locality so that mosquitoes can not breed in open drains ?
5. Write any four ways of waste water management? Write one way to conserve water.