

NEW ERA PUBLIC SCHOOL, RAJBAGH
Solved Assignment of Unit-Ist, 2021

CLASS :- 5th

SUBJECT :- SCIENCE

Topic :- GROWING PLANTS

Lesson no. :- '01'

Answers The Following Questions In Short.

Q1 What are the necessary conditions for a seed to germinate?

Ans Presence of air, water and sunlight are the necessary conditions for a seed to germinate.

Q2 What is the function of roots in a plant?

Ans Roots absorb water and nutrients from the soil. They hold the plant firmly to the soil and also help in storing food and nutrients.

Q3 Give one example of vegetative propagation by -

i, Roots → Carrot is an example of vegetative propagation by roots.

ii, Stem → Potato is an example of vegetative propagation by stem.

iii, Leaves → Bryophyllum is a plant that propagates through its leaves.

Q4 How are seeds dispersed by explosion?

Ans In some plants like pea, seeds are dispersed by explosion. When the seeds mature, their pod dries up and bursts open. It discharges the seeds in all direction with force.

Q5 What is a Farm?

Ans The piece of land on which the crops grow is called a Farm.

Q6 Why are weeds and pests harmful for the crops?

Ans The weeds and pests are harmful for the crops because they compete with crop plants for water, nutrients, space and light. They affect plant growth and also damage crops.

Q6 What is terrace farming?

Ans Terrace Farming is the practice of growing crops on sloping lands, cut down in the form of steps. It is common in the hilly regions.

Answer The Following Questions In Detail.

Q1 Explain the structure of seed with the help of a diagram.

Ans Seeds in plants are generally found inside fruits. A seed has three main parts; seed coat, embryo and cotyledon. Seed coat is a protective covering around the seed. On one side of a seed is a scar. This is where the seed was attached to the fruit. Near the scar is a small hole that allows water to enter and makes the seed swell up. Under the seed coat is the cotyledon which occupies the maximum part of a seed and stores food for the baby plant until it is capable of manufacturing its own food. The baby plant, known as the embryo contains a baby shoot and a baby root. When seeds get enough water, air and warmth they grow into a new plant.

Q2 How does the germination of seed take place? Draw a diagram in support of your answer.

Ans Germination is the process of seeds developing into new plants. A seed in soil, when receives adequate amount of moisture, bursts open to release the embryo. It obtains nourishment from the cotyledons for as long as it

does not develop into a young plant. It receives air and sunlight from the atmosphere. Radicle is the first structure to emerge from the seed. It grows downwards and develops into the root system of the plant. The embryonic shoot system is called Plumule. It grows upwards and forms stem, branches and leaves. The leaves grow above the ground. They make food for the plant in the presence of sunlight.

Q3 Explain the steps of agriculture in detail.

Ans Following are the steps undertaken to perform agriculture.

1. Ploughing → The soil to be cultivated is first prepared by loosening it up and bringing nutrient rich layer to the surface.
2. Fertilizing → Once the soil is ploughed artificial fertilizers and manure are added to the soil to enhance the availability of nutrients to the plants.
3. Sowing → Seeds that are sown must be healthy and disease free to ensure a good produce.
4. Irrigation → The growing crops are watered by natural or artificial means.
5. Crop protection → The standing crops need to be protected against pests, insects and weeds.

6, Harvesting:- Crops are collected from the fields when they are ripe.

7, Storage:- The collected crops are stored in clean dry conditions until they are used or sold.

Q4 What modification do seeds have for dispersal by means of -

(i) Wind:- Seed dispersal by wind occurs in plants like dandelion and cottonweed. The seed in such plants have wing-like structures or hair on them and are also extremely light weight.

(ii) Water:- The seeds of some plants have fibrous or spongy structure to provide buoyancy for floating in water that act as a medium of seed dispersal.

(iii) Animals:- Seeds of some plants like burdock have surface modifications like hooks, barbs, sticky hair or bristles to help them in sticking to the fur on the body of animals. The animals, in turn disperse them to far off places.

Q5 Write a short note on the two main farming

Seasons in India.

Ans The two main farming seasons in India are

1. Kharif Season :→ Kharif crops are sown at the beginning of the rainy season and are also known as monsoon crops. Kharif season lasts from July to October in which crops like rice, maize, millets, pulses etc, are grown.
2. Rabi Season :→ Rabi crops are sown at the end of monsoon or the beginning of winter. They are also known as winter crops. Rabi season falls between October and March and is suitable for growing wheat, barley, mustard, etc.

Define the following terms:

1. Vegetative Propagation :→ The method of growing new plants from parts other than seeds is known as vegetative propagation.
2. Germination :→ It is the process by which a seed sprout and develops into a new plant.
3. Seed dispersal :→ The transportation of seeds

away from their parent plant is called seed dispersal.

4. Agriculture → The cultivation of soil to produce crops and raise livestock is known as agriculture.

Book Exercise

(A) Write 'T' for true and 'F' for false statements:-

Answers

1, F 2, F 3, T 4, F 5, T 6, T 7, F

(B) Fill in The Blanks.

Answers

1, Water 2, atmosphere 3, Roots 4, wind 5, Farmer

6 healthy, disease free

(C) Match The Following

Answers

1, e. Seedling

2, a. Fibrous

3, b. Leaf

4, c. Farm

5, d. Canals and tube wells

Topic :- ANIMAL HABITATS AND ADAPTATIONS

Lesson no. :- 02

Answer the Following Questions in Short.

Q1 Name the different types of habitats.
Ans Forests, deserts, polar regions are the land habitats while oceans and freshwater bodies like lakes, ponds and rivers are the aquatic habitats.

Q2 How does a camel survive in desert?
Ans Camels are well adapted for survival in the desert. They have thick coat of hair that protects them from the sun. They have the ability to store food and can also survive without water for long periods of time.

Q3 What adaptations do polar bears have to live in the polar regions?
Ans Polar bear live in groups and have fur on their bodies. They also have a thick layer of fat under the skin to protect from cold.

Q4 Name some of the marine water animals.
Ans Whales, sharks, dolphins, octopus, starfish, sea horse and sea turtle are some of the marine water animals.

Q5 What is the shell of tortoise made up of?

Ans The shell of the tortoise is made up of calcium compounds.

Q6 What is the need for movement in animals?

Ans Animals move for a variety of reasons such as to find food, mating and to escape from - predators.

Answer the Following Questions in detail.

Q1 How are animals classified on the basis of their breathing organs?

Ans Breathing is indispensable for the survival of all living beings. Some animals breathe on land while others breathe under water. Their breathing organs also vary accordingly. Lungs are the breathing organs of all terrestrial animals. Gills are used by aquatic life forms for respiration. Insects have spiracles as breathing organs. Skin also acts as respiratory organs in some animals.

Q2 Differentiate among herbivores, carnivores and omnivores.

<u>Ans</u> <u>Herbivores</u>	<u>Carnivores</u>	<u>Omnivores</u>
1. Herbivores are the animals which	1. carnivores are the flesh eating	1. omnivores are the animals which feed

eat only plants as their food.	animals.	on both plants and other animals.
2. They have broad and flat molars and premolars to crush and grind plant matter	2. They have sharp pointed front teeth to tear the food, and strong back teeth to chew the flesh and bones	2. They have well developed molars for chewing on plant food material while canines help in eating meat.
3. Goat, cow, horse, rabbit etc are some of the examples of herbivores.	3. Lion, alligator, wolf, tiger etc are some of the examples of carnivores	3. Human beings, cows, bears etc are some of the examples of omnivores.

Q3 Explain the purpose of following body covering on animals.

- i. Fur → Fur provides insulation and allows survival in extremely cold conditions. Polar bear, sheep and yak are the animals that have fur.
- ii. Scales → Fishes and reptiles have scales. The purpose of scales is to retain moisture, protect from predators and help in movement.
- iii. Feathers → Feathers are present on birds. They help them in flying and also in maintaining their body temperature.

(iv) Spines :- Spines, on the body surface of animals are protective in function. They are made up of a special protein and have pointed ends to keep the predators away.

Q4 Mention the locomotory organs of

i) Reptiles :- Legs with vacuum pads are the locomotory organs of reptiles.

ii) Snakes :- Scales or skin is the locomotory organs of snakes.

iii) Birds :- Wings are the locomotory organs of birds. flightless birds have strong legs for running.

iv) Insects :- Three pairs of legs and two pairs of wings are the locomotory organs of insects.

v) Fish :- Fins are the locomotory organs of fish.

Define the following terms:-

1. Adaptation :- It is the physical or behavioural characteristic of an organism that helps them

to survive better in the surrounding environment.

2. Migration: It is the seasonal mass movement of animals over long distances.
3. Camouflage: It is the defence mechanism found in certain animals which allows them to blend with their surroundings and hide from the enemies.
4. Spiracles: Spiracles are the opening or tiny pores on the surface of some animals, which usually lead to respiratory system.

Book Exercise

(A) Write 'T' for true and 'F' for false statements:-

Answers

1. F 2. T 3. F 4. T 5. T 6. F 7. T

(B) Fill in the blanks:-

Answers

1. night 2. minimal 3. Eagle 4. Spiracles 5. wings
6. skin, lungs.

(C) Match the following:-

Answers

1. C. Porcupine
2. d. Mating
3. a. Webbed feet
4. b. India

Topic :- 'FOOD AND HEALTH'

Lesson no. :- 03

Answer the following questions in short.

Q1 What are the constituents of a balanced diet?

Ans The constituents of a balanced diet include carbohydrates, fats, proteins, vitamins, minerals, water and roughage.

Q2 Why is it important for us to drink water?

Ans This is because water helps in the proper functioning of the body. It digests food and also helps to get rid of wastes.

Q3 How can we attain good health?

Ans Maintaining a good health is the key to living a disease free and happy life. Balanced diet, adequate rest and sleep, correct posture, proper hygiene and regular exercise are the means to

attain good health.

Q4 What is protein-energy malnutrition?

Ans Protein-energy malnutrition is a type of malnutrition in which the body lacks basic nutrients like carbohydrates, fats and proteins.

Q5 Name some diseases that can be prevented by vaccination.

Ans Polio, tetanus, hepatitis etc are some of the diseases that can be prevented by vaccination.

Answer the following questions in detail.

Q1 What is the importance of the following nutrients in our body? Also, name two sources of each.

i) Carbohydrates → They are the energy giving foods. They make up the bulk of our diet. Whole grains, rice are the two sources of carbohydrates.

ii) Fats:- Like carbohydrates, fats are also energy giving foods but they release much more.

energy on burning. Fat is also deposited under the skin and helps in maintaining the body temperature. Milk, ghee are the two sources of fat.

iii) Proteins :→ They are the building blocks of the body. They are essential for the growth and repair of the cells and tissues of our body. Fish, milk are the two sources of proteins.

iv) Vitamins and minerals :→ Vitamins and minerals are micronutrients. They are essential for proper functioning of the body. They also help in boosting our immunity to fight against germs. Fruits, green leafy vegetables are the two sources of vitamins and minerals.

Q2 What are the benefits of exercise?

Ans Following are the benefits of exercise.

1. It ensures proper functioning of the body system.
2. It also prevents from diseases and boosts the immune system.
3. It improves muscle tone and enhances blood circulation in the body.

Q3 Define diseases. Name some deficiency

diseases along with their causes.

Ans Disease is a condition in which there is an irregularity from the regular structure or functioning of the body.

Some of the deficiency diseases along with their causes are given below:

<u>Deficiency diseases</u>	<u>Causes</u>
1. Night Blindness	Lack of vitamin A.
2. Beriberi	Lack of vitamin B1.
3. Scurvy	Lack of vitamin C.
4. Anaemia	Lack of Iron.
5. Goitre	Lack of Iodine.

Q4. Mention five ways to achieve good hygiene.

Ans Following are some five ways for achieving good hygiene.

1. We should always wash our hands before we eat.
2. We should wash the fruits and vegetables thoroughly before we eat or cook them.
3. We should not share items of personal use like toothbrush, towel, soap etc with anyone else.

4. We should avoid eating from the roadside vendors who do not cover their food items.
5. We should keep our surroundings clean.

Book Exercise

(A) Write 'T' for true and 'F' for false statements

Answers

- 1, T 2, F 3, F 4, T 5, F 6, T

(B) Fill in the blanks.

Answers

- 1, Carbohydrates 2, Roughage 3, Vitamin C
4, Contaminated 5, rinse, brush

(C) Match the following.

1. d. Protein
2. b. Fitness
3. a. Night blindness
4. c. Typhoid

(D) Define the Following terms:-

1. Balanced diet :- A diet which contains all the nutrients required by our body in definite proportions.
2. Roughage :- It is the dietary fibre which help in digestion and movement of food through the gut.
3. Health :- It is a state of complete physical, emotional and mental well being of an individual.
4. Communicable diseases :- Communicable diseases are those which spread from an infected person to a healthy person through direct or indirect contact.
5. Vaccination :- It is a simple, safe, and effective way of protecting us against harmful diseases, before we come into contact.

PRACTICE THE CHAPTER WISE DIAGRAM OF THE FOLLOWING.

1. Structure of a seed.

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2. Germination of a seed Page no. 8
 3. Breathing organs Page no. 19
 4. Terrestrial habitat (Any two) Page no. 16
 5. Aquatic habitat (Any two) Page no. 16
 6. Sources of carbohydrates (Any three) Page no. 27
 7. Sources of proteins (Any three) Page no. 27
 8. Sources of vitamins and minerals (Any three) Page no. 28
 9. Sources of roughage (Any three) Page no. 28
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