

St. Thomas School, Dhurwa, Ranchi – 4.  
Annual term - 2020-2021

Class: 5

Subject: SCIENCE

## Chapter-5: Plant Reproduction

Answers of exercise questions (Pg. 73-74)

1. Choose the correct answer:-

- a. Coconut   b. Spores   c. Stem   d. Explosion   e. Embryo

2. Fill in the blanks: -

- a. reproduction   b. germination   c. leaves   d. Spores   e. animals

3. Give two examples of each:-

- a. Cocklebur, guava  
b. Cotton seeds, maple seeds  
c. Bryophyllum, aloe vera  
d. Sweet potato, carrot  
e. Rose, hibiscus

4. Short answer questions:-

- a. i. Aloe vera – leaf  
ii. Omitted  
iii. Potato – stem  
iv. Fern – spores  
b. Scattering of seeds away from the parent plant is known as dispersal of seeds.  
c. The stem cutting of a rose plant are put in moist soil, it develops roots and grows into a new plant.  
d. i. Cotton – Seeds have a small fluff around them.  
ii. Maple – Seeds have wings.  
e. Leaves of bryophyllum bears buds on them. These buds give rise to new plants when they fall in moist soil.

5. Long answer questions: -

- a. The process of growing plants from parts other than the seeds is called vegetative reproduction, e.g. Sweet potato reproduce through roots, hibiscus reproduce through stems and bryophyllum reproduce through its leaves.  
b. When a pollen grain lands on the sticky stigma of the same kind of flower, it sends out a tiny thread-like tube, called the pollen tube, down the style of the pistil. The male gametes are then carried to the ovules in the ovary through this tube. One male gamete fuses with the female gamete to form a fertilized cell called zygote. This process is called fertilization.

After fertilization, the zygote develops into an embryo, the ovule changes into a seed, and the ovary changes into a fruit.

c. To observe a new plant growing from its roots:-

- Take a sweet potato
- Fix it in a glass bottle containing water, with the help of toothpicks.
- Leave the set-up undisturbed for few days.

You will observe that new stem and leaves grow on the sweet potato.

This shows that the sweet potato plant can reproduce from its root.

d. If all the seeds just fall to the ground under the parent plant, it will lead to overcrowding and competition for air, water and nutrients. Hence dispersal of seeds is essential.

The agents of seed dispersal with two examples of each are: -

- i. Wind – cotton, maple
- ii. Animals – cocklebur, mango
- iii. Water – lotus, coconut
- iv. Explosion – Balsam, peas

e. The seed shown in picture (4) will germinate because it is provided with all the essential conditions required for germination such as air, water and warmth.

## **Chapter-5: Plant Reproduction**

### **Practice Paper with Answers**

I. Give the technical term for the following.

1. Type of reproduction that involves one parent

Ans. Asexual reproduction

2. The reproductive part of a plant

Ans. Flower

3. It has three main parts- seed coat, embryo and cotyledon.

Ans. Seed

4. The tiny thread like tube, down the style of the pistil, that carry the male gamete

Ans. Pollen tube

5. Other name for seed leaves

Ans. Cotyledons

II. Fill in the blanks with the appropriate terms.

1. After fertilization, the zygote develops into an embryo.

2. After pollination, the pollen develops a pollen tube.

3. The surface of potato bears special structures called eyes.

4. Reproduction that involves two parents is called sexual reproduction.

5. A seed germinates into a seedling.

III. State whether the following statements are true or false. If false, rewrite the statements by changing first or the last word.

1. Non flowering plants can reproduce by formation of seeds.

Ans. False; Non flowering plants can reproduce by formation of spores.

2. The seeds of cocklebur plant have hooked spines.

Ans. True

3. Potato stores food in its thick and fleshy underground root.

Ans. False; Potato stores food in its thick and fleshy underground stem.

4. The fibrous outer covering of a coconut enables it to float away on water.

Ans. True

5. The embryo grows into a new plant when conditions are right.

Ans. True

IV. Complete the pairs.

1. Tiny root : radicle :: Tiny shoot: plumule

2. Ovary : fruit:: Ovules : seeds

3. Two cotyledons : dicot seed :: one cotyledon : monocot seed

4. Sweet potato : root:: Bryophyllum : leaf

5. Hairs : dandelion :: Wings: maple

V. Give two examples for each of the following.

1. Vegetative parts of a plant

Ans. (a) Root (b) Stem

2. Plants that reproduce through spores

Ans. (a) Mushroom (b) Fern

3. Monocot seeds

Ans. (a) Wheat (b) Maize

4. Dicot seeds

Ans. (a) Gram (b) Pea

VI. Differentiate between seed coat and cotyledon on the basis of their function.

Ans.	<u>Seed coat</u>	<u>Cotyledon</u>
	It protects the embryo from injury or dying out	It provides food for the growing embryo.

VII. Define the terms.

1. Fertilization:

The fusion of the male and female gametes, to form a zygote, is called fertilization.

2. Dispersal of seeds:

The process of carrying seeds away from the parent plant is called dispersal of seeds.

3. Reproduction:

The process of producing more of one's own kind is called reproduction.

4. Dispersal of seeds:

The process of carrying seeds away from the parent plant is called dispersal of seeds.

VIII. Give reasons for the following.

1. Farmers leave space between two seeds while sowing them.

Ans It results in their uniform growth and reduces overcrowding, thereby providing sufficient nutrients, water and sunlight to all plants.

2. Farmers remove weeds from the crops.

Ans.It is because weeds use up the water, minerals and sunlight which are meant for crops. This may affect the growth of the desired crop.

IX. Draw neat and labelled diagrams of

- i. Fertilization
- ii. Structure of a seed
- iii. Stages of germination of a seed

Ans. i. Refer to page no. 67  
ii. Refer to page no. 68  
iii. Refer to page no. 69

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