**Chapter 9**

 **Reproduction of Plants**

1. The student should talk to gardener and note down the names of plants he grows in a garden and then in front of them write down the name of the part that is used to produce new plants.
2. Ram took 10 spoons of lukewarm water in a container added one spoon of sugar to it. Then added dry yeast to it mix well, cover the container and leave it undisturbed for about 24 hours. After this he took out drop of this solution and saw it under the microscope. State what does he sees under the microscope?
3. Fill in the blanks
4. Root, stem and leaves are\_\_\_\_\_\_\_\_\_\_\_\_ parts of the plant.
5. \_\_\_\_\_\_\_\_\_\_ can reproduce by fragmentation.
6. In case of bread mould spores are produced in \_\_\_\_\_\_\_\_\_\_.
7. Ginger and turmeric can reproduce by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. A \_\_\_\_\_\_\_\_ flower may have stamens or pistil.
9. Tomato and mustard are example of \_\_\_\_\_\_\_\_\_\_ flowers
10. Seeds that are very light are carried to a new place by \_\_\_\_\_\_\_\_\_\_.
11. The transfer of pollen from anthers to stigma of flower is known as \_\_\_\_\_\_\_\_\_\_.
12. After fertilisation the ovary begins to grow and forms a\_\_\_\_\_\_\_\_\_\_.
13. State whether given statements are true/ false
14. Pollen grains are very light and microscopic and contain female reproductive cell.
15. The zygote divides inside the ovule to form a baby plant the embryo.
16. Wind, insects, birds, bat, water and many other animals are the main pollinator in nature.
17. Yeast reproduces by fragmentation.
18. In asexual reproduction an individual can reproduce on its own without involvement of another individual.
19. Define the following terms
20. Asexual reproduction
21. Vegetative reproduction
22. Sexual reproduction
23. Pollination
24. Fertilisation
25. Name them
26. 2 plants whose seed are dispersed by wind
27. 2 plants which reproduce by vegetative propagation from root
28. Plant that reproduce by fragmentation
29. 2 plants having unisexual flower
30. A false fruit
31. 2 plants that can reproduce from cutting of stem
32. Multiple choice questions
33. The flower that has either stamens or pistils only are known as
34. Unisexual flower b) bisexual flower c) hermaphrodite flower d)none
35. Yeast reproduces by
36. Spore formation b) budding c) fragmentation d) fission
37. The seeds of madar have hairy outgrowths because of which are dispersed by
38. Water b) Wind c) insects d) Bats
39. The process of fusion of the male and female gametes produced in flower is
40. Pollination b) Fertilisation c) Propagation d) none
41. When the reproduction of plant takes place from the vegetative part of the plant it is known as
42. Sexual reproduction b) Vegetative propagation c) fertilisation

d) pollination

1. Differentiate between asexual and sexual mode of reproduction.
2. Complete the given flow chart Agents Example

Dispersal by Wind

Coconut , Lotus

Seed Dispersal

Pea, Bean

1. Give reasons for the following
2. Seeds of orchid are very light and fine like dust.
3. Apple is known as false fruit.
4. The pod of castor on getting ripe dries and explodes.
5. Cuttings of rose and guava are used for propagating them commercially.
6. When we reproduce a new plant of Bryophyllum using the leaves we call this method as vegetative propagation.
7. State the different methods of asexual reproduction by which different organisms reproduce.
8. With help of diagram describe the method of grafting in rose.
9. How is layering used in Jasmine for reproduction?
10. Name the part of stem that helps in propagation of the following plants
11. Potato
12. Onion
13. Corm
14. How is self pollination different from cross pollination?
15. Why do the wind pollinated flowers have their anthers situated at higher level than the petals? Give example of such plants.
16. The insect pollinated flower are brightly coloured and have nectar glands, justify.
17. What is the purpose of pollinator?
18. Sequentially explain what happens once the pollen grains falls on the stigma of a flower.
19. Write down the fate of the following parts of flower in a plant
20. Pollen grain
21. Female gamete
22. Sepals after fertilisation
23. Ovule
24. Ovary
25. Show the process of cross- pollination with the help of diagram.
26. What is the function of the outer wall of pollen grains and do pollen grains of all plant spies have same pattern on their outer wall or not?
27. What do you understand by dispersal of seed and why do seed need to disperse?
28. Draw a labelled diagram of budding in yeast.
29. a) Name the part of plant involved in sexual reproduction.
30. Draw the labelled diagram of the part mentioned above.

 **Chapter 10**

 **Soil**

1. Take some soil from roadside outside your house and from a garden. Now pour equal amount on these soil separately and note down whether both the soils allow the water allow the water to percolate or retain the water.
2. I was passing through a village and asked a farmer what kind of soil was present in the field. He told me there was loamy soil. Based on the answer given by the farmer write down the properties of soil I could accept from the soil.
3. Adding too much of fertilisers, pesticides can damage the soil, how?
4. Why is soil considered as a resource?
5. Fill in the blanks
6. \_\_\_\_\_\_\_\_\_\_\_\_ is one of the important natural resources on the earth.
7. Soil has been formed by \_\_\_\_\_\_\_\_\_,\_\_\_\_\_\_\_\_\_\_ and decay of living plant and animal matter.
8. The arrangement of different horizons in a soil is known as \_\_\_\_\_\_\_\_\_\_\_\_.
9. Soil texture depends mainly on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the soil particles.
10. Soil colour differs due to \_\_\_\_\_\_\_\_ content of their parent rock and amount of organic matter in them.
11. The tendency of similar particles to stick to one another is known as \_\_\_\_\_\_\_\_\_\_.
12. \_\_\_\_\_\_\_\_\_\_\_\_ is rate at which water enters a soil.
13. \_\_\_\_\_\_\_\_\_\_\_\_ soils absorb water well but do not hold it well.
14. \_\_\_\_\_\_\_\_\_\_\_ are known as nature’s ploughmen.
15. Careless cultivation, that involves leaving the field fallow for some time can also cause\_\_\_\_\_\_\_\_\_\_\_.
16. State whether given statements are true/false
17. Soil materials are a critical component in the mining and construction industries.
18. Overgrazing of grassland makes it more fertile.
19. Organic material includes dead and decaying parts of plants and animals.
20. Soil with high humus content do not hold water well and do not let water drain out very fast.
21. Plasticity is the property that enables moist soil to change its shape on application of force and retain this shape when force is withdrawn.
22. Define the following terms
23. Cohesion
24. Soil
25. Plasticity
26. Soil pollution
27. Weathering
28. Multiple choice questions
29. Soil erosion can be prevented by
30. Extensive afforestation b)leaving the field fallow c) flooding of the land

d)highway construction

1. The soil that is considered best for growth is
2. Sandy soil b) Clayey soil c) Loamy soil d) none
3. The tendency of similar particles to stick to one another is known as
4. Plasticity b) Cohesion c) Infiltration d) Percolation
5. Which one is known as nature’s ploughmen?
6. Bacteria b) fungi c) Earthworm d) algae
7. How is soil formed?
8. Discuss the various causes or agents of physical weathering.
9. Complete the flow chart

O-Horizon

Humus mixed with mineral particles

B-Horizon

Soil Horizon

Unweathered rock –bed rock

1. a) On what does soil texture depends?
2. Name the three categories into which soil is classified on the basis of texture.
3. Why do we find soil o different colour?
4. Soil type is very important in understanding the rate of absorption and retention of water in the soil, justify this with help of examples.
5. What do you understand by soil pollution? And what factors are responsible for causing soil pollution?
6. Give reason for the following statements
7. The soil in different part of India is different
8. Soil pollution has adverse effects on plant growth and animal health.
9. Overgrazing can change grassland into deserts.
10. Water logging can result in poor plant growth and even death of the plants.
11. Earthworm is known as nature’s ploughmen.
12. What factors are responsible for deciding the type of crop that should be grown in particular field?
13. What is soil erosion? How can soil erosion be prevented?
14. What causes soil erosion?
15. What do you understand by following terms
16. Earth sheltering
17. Casts
18. Eluviation
19. What are factors responsible for chemical weathering?
20. What properties of soil help the potter to make lay pots and terracotta toys?
21. Define the factors which influence the formation of natural wildlife habitats?
22. Differentiate between sand clay and silt on the basis of the size of particles.