e.w
29.6.21

Date
Page 59

Short Answer Questions:

(1) 1) Testa: It is the outer exposed part of the seed.
2) Plumule: It is located between the two cotyledons and develops in to a shoot.
3) Radicle: It is located between the two cotyledons and develops into a root.
4) Micropyle: It absorbs and allows the entry of as much as water as required for germination.
5) Cotyledon: It stores the food material which is used by the seedling for growth.

(2) a) Pea
b) Maize grain
c) Been seed.
d) Been seed

(3) a) Radicle and Plumule -
The radicle develops in to a root, while the plumule develops in to a shoot.

b) Hilum and micropyle -
Hilum is the inner concave side of the seed, where the seed was attached to the fruit wall.

(3) Micropyle is a small pore which absorbs and allows water required for germination.

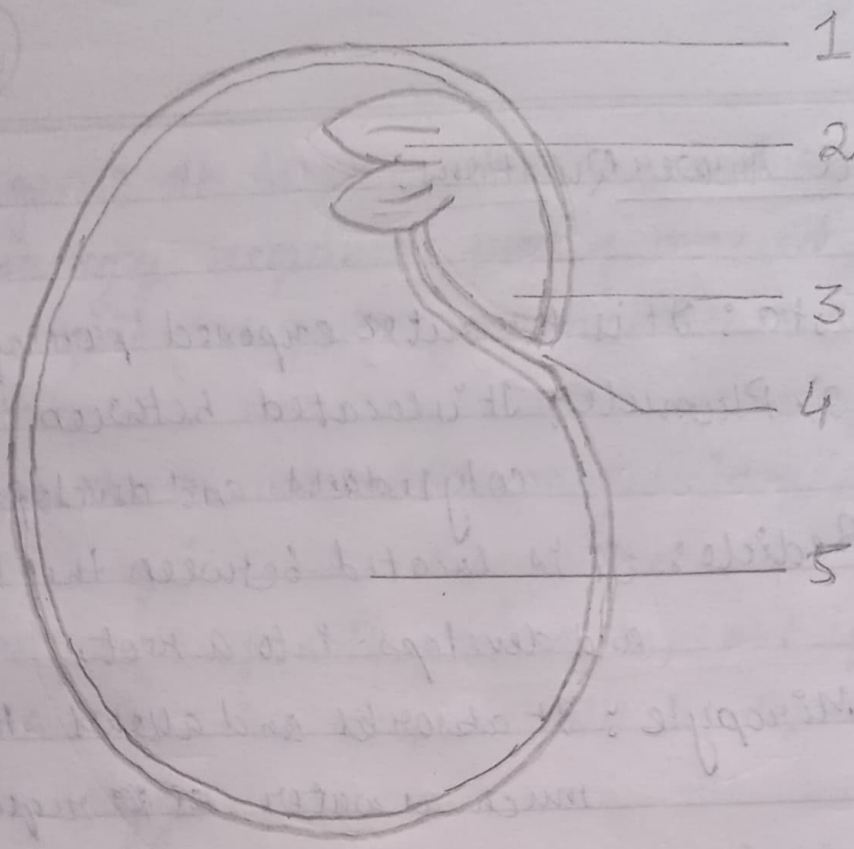
c) Testa and tegmen:-

Testa is the outer exposed part of the seed coat, whereas tegmen is a thin membrane and lies under the testa. It is the inner part of the seed coat.

5. Match the columns:

Column A		Column B
a) Radicle	–	iii) Root.
b) Plumule	–	i) Shoot
c) Cotyledon	–	ii) ~~Absorb water~~ Store food material
d) Testa	–	v) Protection of seed
e) Micropyle	–	iv) Absorb water needed for germination.

(1)



1 - Testa
2 - Plumule
3 - Radicle
4 - Micropyle
5 - Cotyledon.

(4) The two functions of fruit are -

→ It protects the seed form the unfavourable environmental conditions.
→ Fruits store food inside them.

b) Good soil, water and air.
c) Good soil, suitable temperature and light.
d) Light, oxygen, and temperature
e) Oxygen, carbon dioxide and light

10. Name the part of the seed from which the following are given out :

a) Roots - Radicle
b) Leaves - Plumule

Long Answer Type Questions -

① What is meant by pollination? Name the two types of pollination.

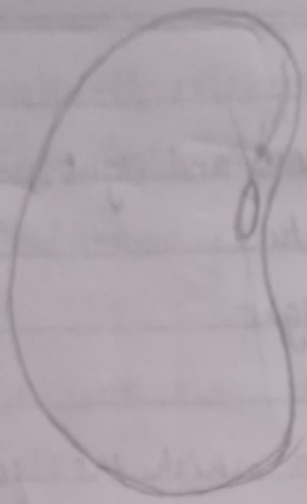
Ans - Pollination is the transfer of pollen grains from the anthers to the stigma of a flower.
The two types of pollination are :-

a) Self pollination : It occurs within a single flower or between the flowers of same plant.
b) Cross pollination : It occurs in flowers of different plants of same kind.

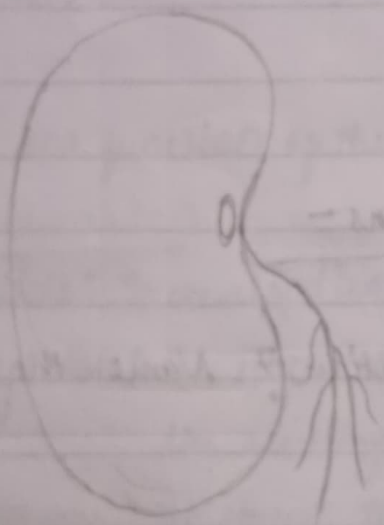
Short answer Question-

Pg. No-64

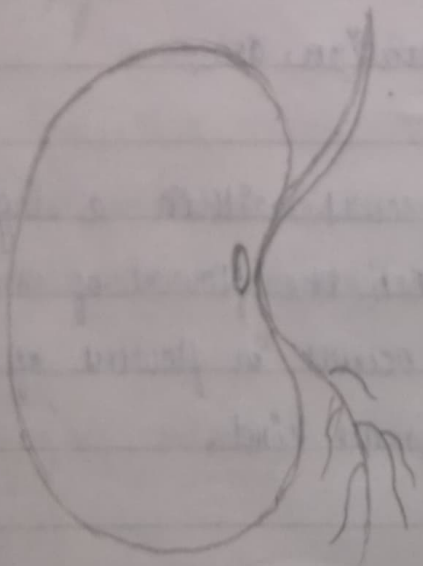
(11) Complete Seed:-



Radicle emerged:-



Plumule emerged:-



(4) With the help of a suitable diagram, describe the structure of a dicot seed.

Ans - The bean seed is an example of dicot seed. Whose diagram is shown.

The green outermost covering of the seed is called the seed coat. It protects the seed from insects and bacteria as well as from mechanical injuries.

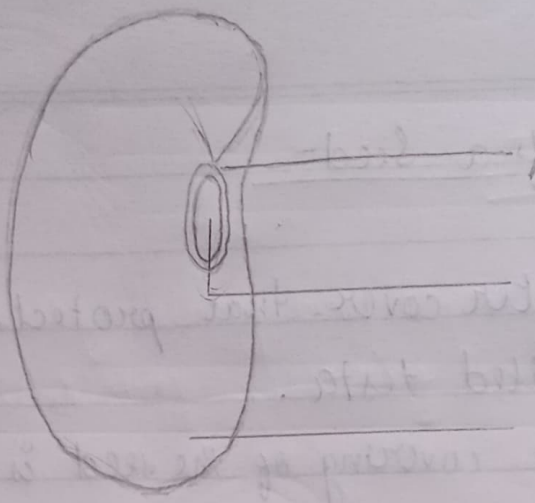
The seed coat is again made up of two parts. The outer exposed part is called the testa and the inner part is called tegmen.

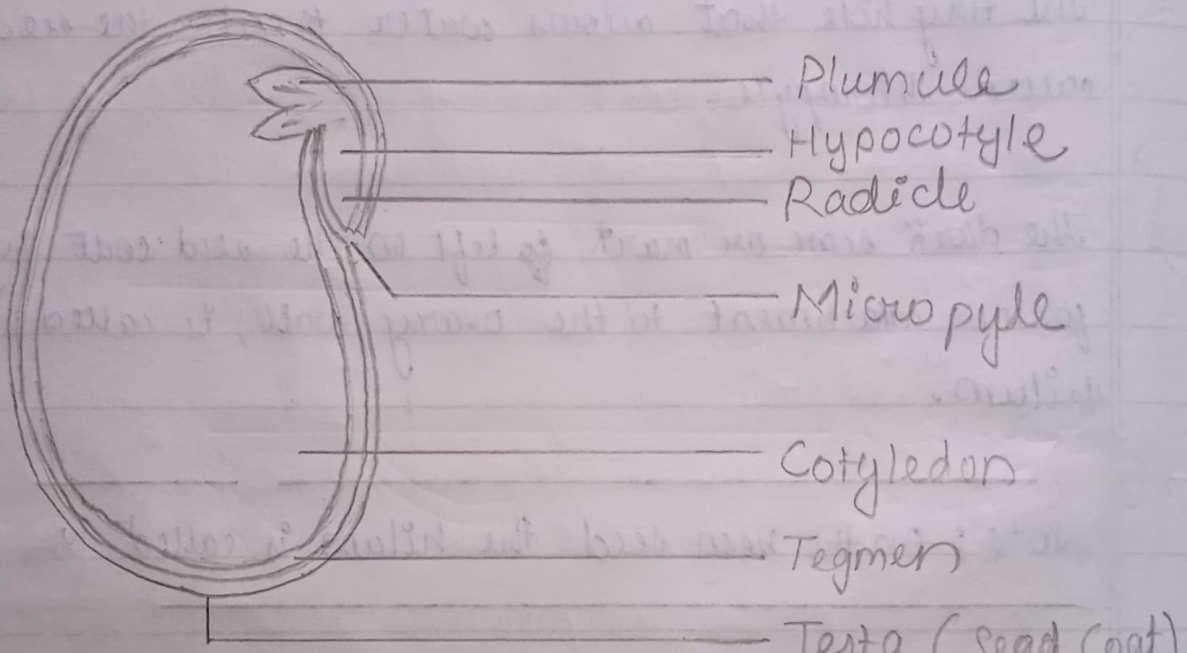
A scar called hilum is present in the inner concave side of the seed. This is the place where the seed is attached to the fruit wall.

Above the hilum, there is a small pore called micropyle. It absorbs and allows the entry of water required for germination.

The seed is made up of two fleshy seed leaves called the cotyledons. They contain stored food material which is used by the seedling for growth.

In between the two cotyledons a delicate embryo is located, which consists of radicle and plumule. The radicle develops into a root and the plumule developed into a shoot.


Micropyle
Hilum
Seed Coat


Plumule
Hypocotyle
Radicle
Micropyle
Cotyledon
Tegmen
Testa (Seed Coat)