

Review Questions

Multiple Choice Question:

1. Put a tick mark (✓) against the correct alternative in the following statements:

a) In a germinating seed, the roots develop from:

Ans- i) Radicle

b) In a germinating seed, the shoot develops from:

Ans- ii) Plumule

c) Which one of the following is a monocotyledonous seed?

Ans- iii) Maize

d) If the cotyledons are pushed above ~~above~~ the soil then such type of germination is called:

Ans- i) Epigeal

e) If the cotyledons remain under the soil, then such type of germination is called:

Ans- ii) Hypogeal

f) Pollen is produced in the:

Ans- iv) Anther.

g) Reproductive whorls of a flower are:

Ans- i) Stamens and carpels

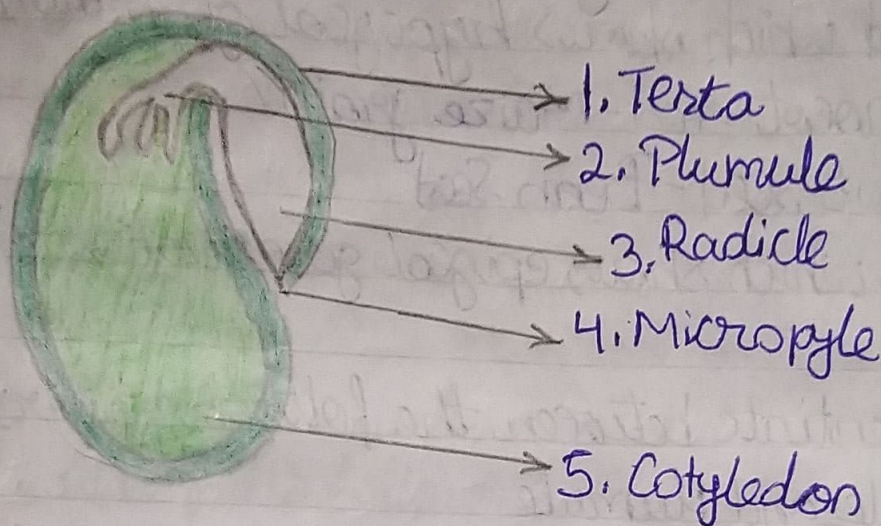
h) Which one of the following is a false fruit?

Ans- ii) Apple

i) In a seed, food is generally stored in:

Ans- iv) Cotyledons or endosperms

1. Given below is a longitudinal section of a bean seed. Label the parts marked 1 to 5 and their functions.



1. Testa: It is the outer exposed part of the seed. It protects the seed from insects and bacteria as well as from any mechanical injury.
2. Plumule: It is located between the two cotyledons and develops into 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 is required for germination.
5. Cotyledon: It stores the food material which is used by the seedling for growth.

Short Answer Questions:

2. Name the following:

- a) A seed which shows hypogeal germination - Pea
- b) A monocot seed - Maize grain
- c) A dicot seed - Bean Seed
- d) A seed which shows epigeal germination - Bean Seed

3. Differentiate between the following pairs of terms:

a) Radicle and Plumule

Ans - The radicle develops into a root, while the plumule develops into a shoot.

b) Hilum and micropyle

Ans - Hilum is the inner concave side of the seed, where the seed was attached to the fruit wall. Micropyle is a small pore which absorbs and allows water required for germination.

c) Testa and tegmen.

Ans - 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.