3. a) The radicle develops into a root while the plumule develops a shoot.

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

c) 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.

The two functions of fruit are :-

4. i) It protects the seed from the unfavourable environmental conditions.

ii) Fruits store food inside them.

5.

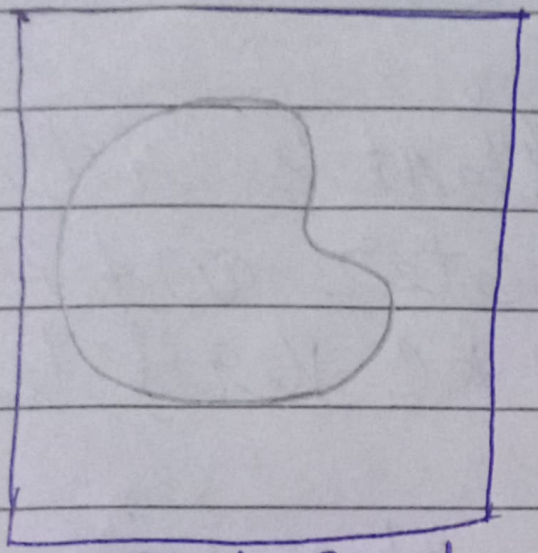
Column A	Column B
a) Radicle	iii) Root
b) Plumule	i) Shoot
c) Cotyledon	ii) Store food material
d) Testa	v) Protection of seed
e) Micropyle	iv) Absorb water needed for germination

6. As the radicle emerge out of the seed earlier and develop into a root it helps in providing water and mineral for further growth of the plumule.

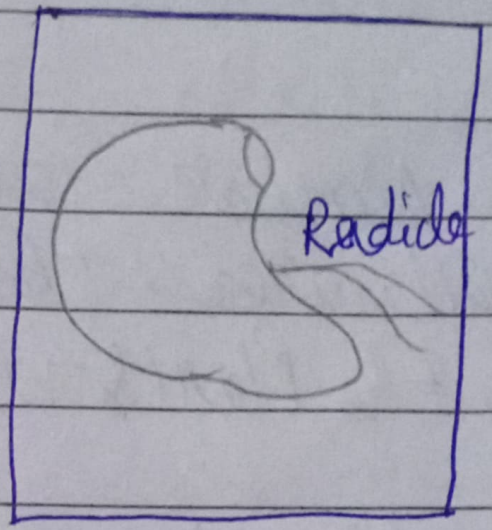
7. a) False
b) True
c) False
d) True

(10) a) Roots :- Radicles
b) Leaves :- Plumule

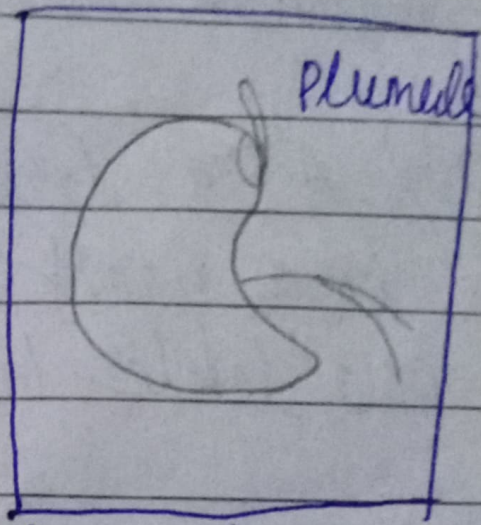
(11)



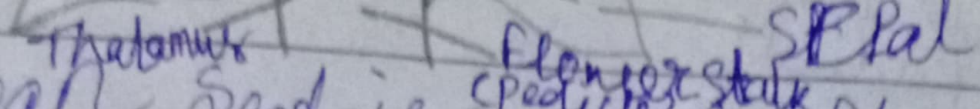
Complete Seed



Radicle emerged

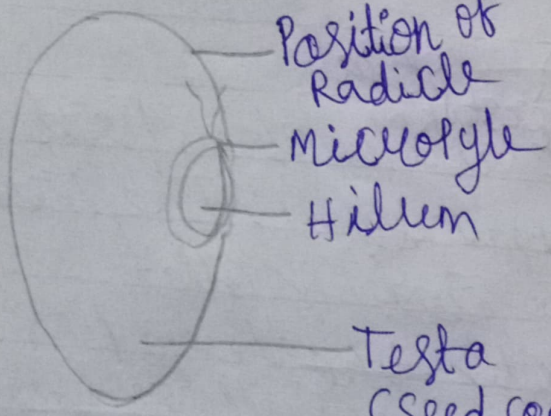


Plumule emerged

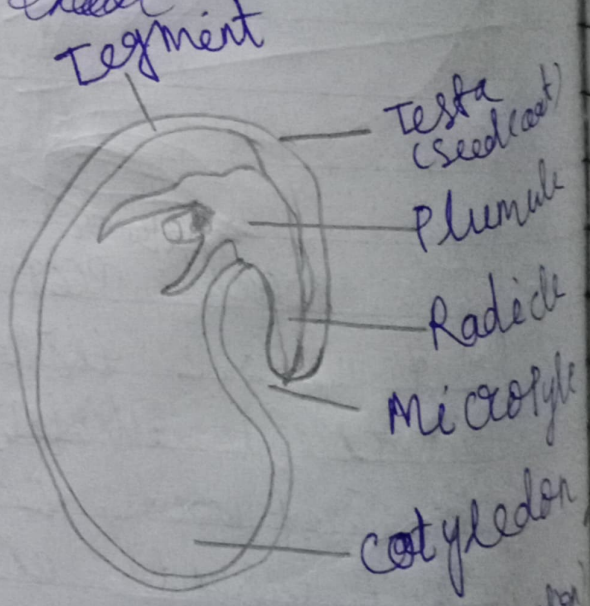


4. The bean seed is an example of a dicot seed. whose diagram is shown below. The green outermost covering of the seed is called the seed coat. It protects the the seed from insects and bacteria as well as from mechanical injury. The seed coat is again made up of two parts. The outer exposed part is called testa testa and the inner part is called tegmen. A scar is called hilum is present in the inner concave side of 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 bilobed seed leaves 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 is consist of radicle and plumule. The radicle develops into a root and the plumule develops into a shoot.



(External Appearance)



(Longitudinal Section)

5. The process by which the embryo in the seed becomes active in the seed becomes active in the presence of water. Air and suitable temperature and grows into a young plant is called germination. The two types of germination are epigeal germination and hypogeal germination.

Epigeal germination :- The type of germination