Q-3

(a) Ans- Radicle - In a seed the radicle lies downwards near the lower pointed end of the grain. It gives rise to the root.

Plumule :- in a seed the plumule lies upwards near the cotyledon and given rise to the shoot.

(b) Ans- Hilum :- On one side of seed coat, there is scar called hilum, which marks the seed was attached to the fruit wall.

Micropyle:- Above the hilum is a small pore called micropore. The micropyle absorbs as much water as is required for germination.

(c) Testa:- The seed is protected by a thick outermost coat called the testa or seed coat.

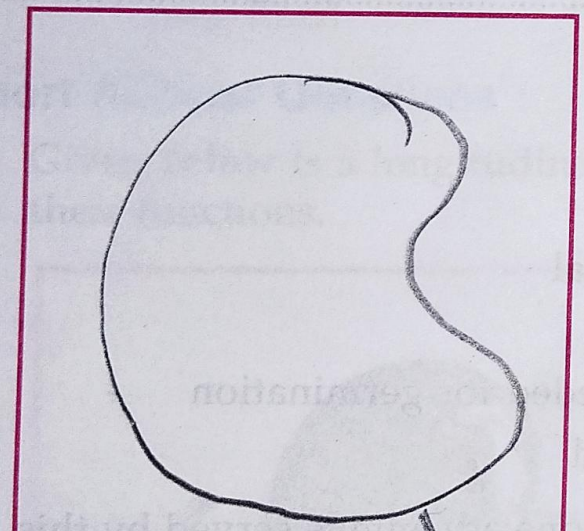
Tegmen:- Under the testa lies a very thin membrane called the tegmen.

Ans- Functions of a fruit are:-

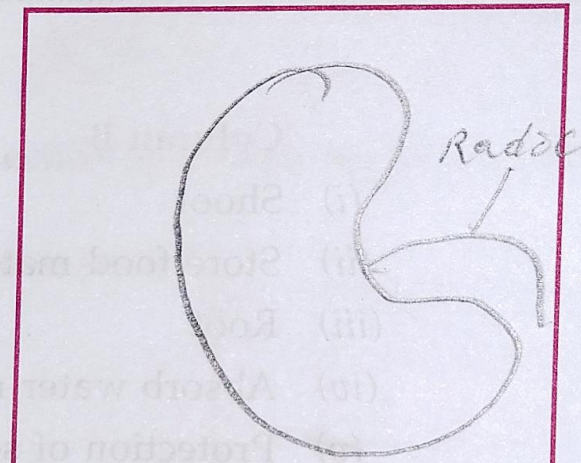
1) fruit is protective case for the seed
2) fruit is a temptation to animal and man to eat it and scatter the seeds.

10 1) Roots- Radicle give rise to roots.
2) Leaves- plumule gives rise to shoot bearing leaves.

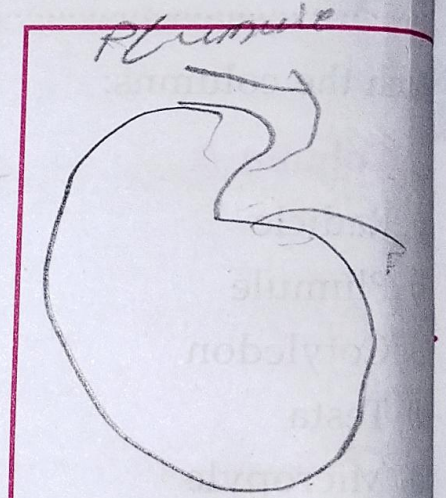
11. In the spaces provided below, draw labelled diagrams to show the three stages in the germi of any seed you have observed.



Complete seed



Radicle emerged



Plumule emerged

LAB

Q4 Ans- It is dicotyledonous and non endospermic seed. It is produced in a long cylindrical pod. External characters. The seed is brown or whitish brown in colour. The seed is hard and smooth and kidney shaped i.e:- convex on one side and concave on the other side. The concave side bears whitish scar called hilum. It is the place which is attached to the wall of the pod through a stalk called funicle. At one side of the hilum is a small pore called micropyle where enters through it.