

Q3: Differentiate between

a) Radicle and plumule

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

b) Hillum and microphyte

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ans:- ~~Hilum~~ 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

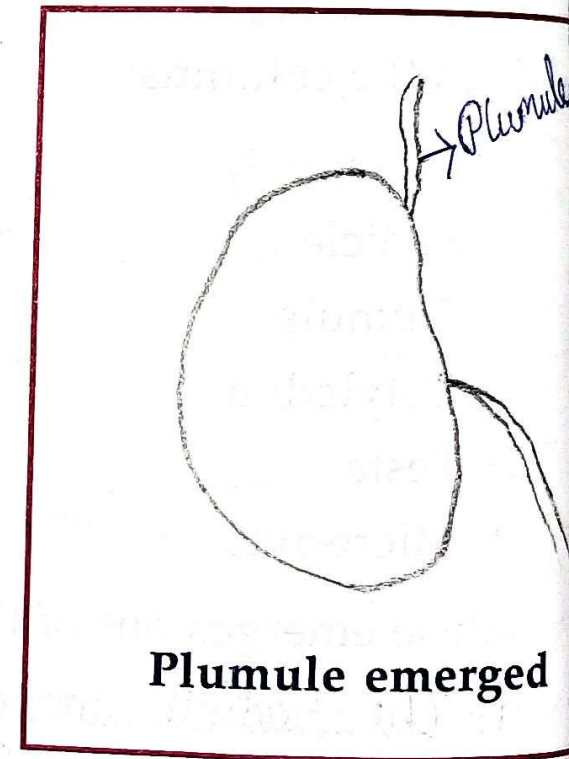
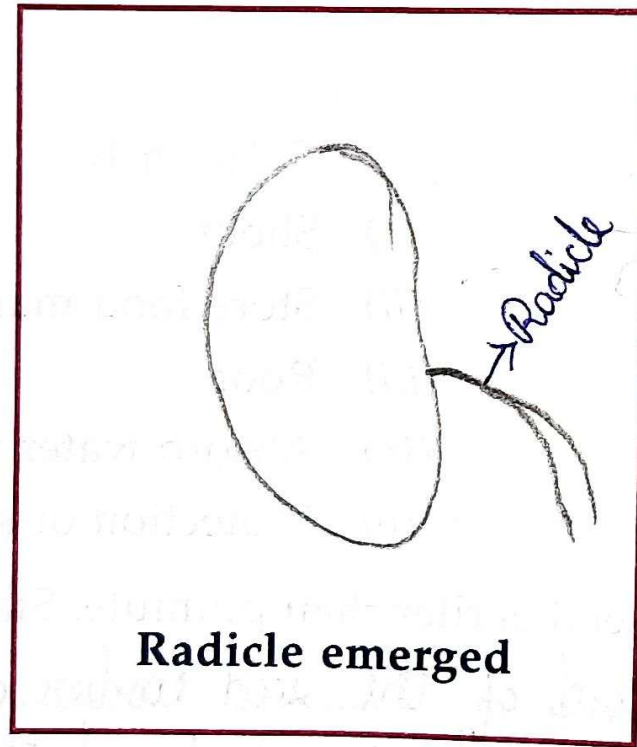
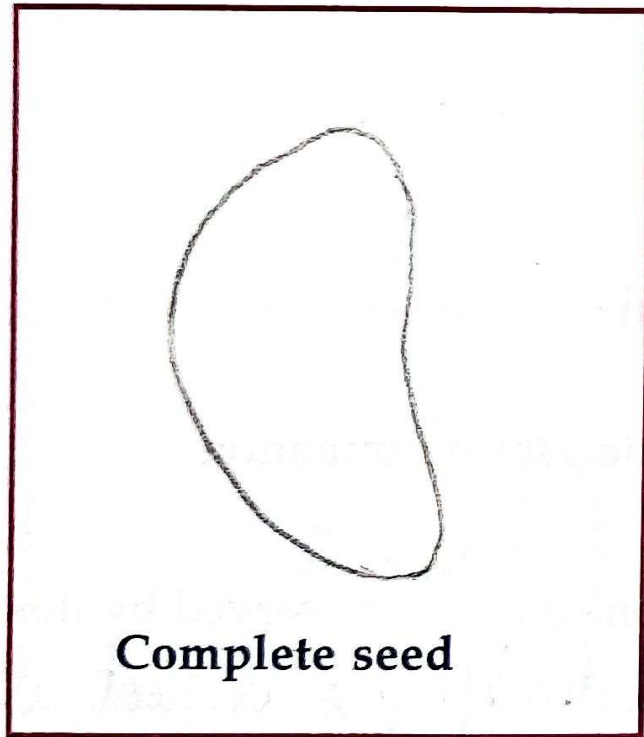
ans:- Testa is the outer exposed part of the seed coat whereas tegmen is a thin membrane and lies under the testa. It is the inner part of the seed coat.

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

(a) Roots : Radicles

(b) Leaves : Plumule

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





## Long answer questions:-

Q4. With the help of suitable diagram, describe the structure of a dicot seed?

ans:- The bean seed is an example of a dicot seed. Which diagram is shown in the next page.

The green outermost covering part of the seed is called the seed coat. It protects 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 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.

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In between the two cotyledons a delicate embryo is located. Which is consist of radicle and plumule. The radicle develops in to a root and the plumule develops in to a shoot.