

WORKSHEET 2

CHAPTER 5 – GERMINATION OF SEEDS

A. Name the following.

1. Seed germinates inside the fruit while it is still attached to the parent plant.
2. The opening through which water enters into a seed.
3. A monocotyledonous endospermic seed.
4. Type of seed germination in which cotyledons are pushed above the ground and hypocotyl elongates.
5. Inner thin layer of seed coat.

B. Fill in the blanks.

1. _____ is a protective layer of radicle and _____ protects the rolled plumule.
2. In bean seeds, _____ grows faster and the seeds are brought _____ the ground.
3. _____ shows viviparous germination.
4. The embryo inside a dry seed is in a _____ state.
5. _____ seeds are exalbuminous monocot seeds.

C. Match the items in Column A with those in Column B and write down the matching pairs.

Column A

1. Bean Seed
2. Maize grain
3. *Rhizophora*
4. Coleoptile
5. Coleorhiza

Column B

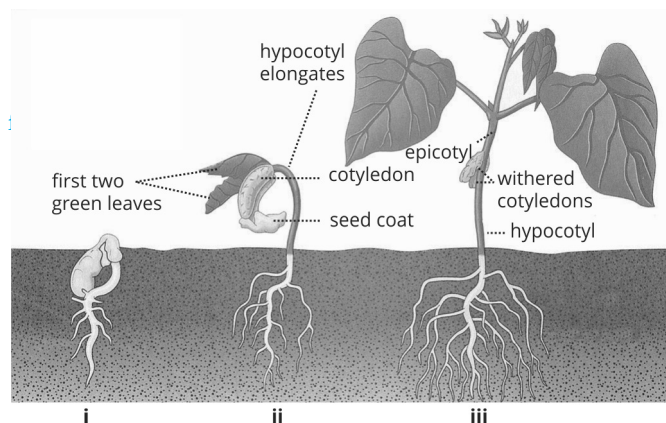
- a. radicle
- b. plumule
- c. hypogeal germination
- d. epigeal germination
- e. viviparous germination

D. State whether the following statements are True or False.

1. Bean seed has a large endosperm.
2. Testa is the innermost layer of the seed coat.
3. Maize grain has one cotyledon.
4. Plumule is the future root of the plant.
5. Endosperm stores food for the developing embryo.

E. Study the figure given alongside and answer the following questions.

1. Identify the type of seed germination.
2. Explain stages i, ii and iii.
3. Give examples of few plants where such type of seed germination occur.



Name:

Teacher's signature:

Class: IX

Date:

ANSWERS

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A. Name the following.

1. Viviparous germination
2. Micropyle
3. Maize
4. Epigeal germination
5. Tegmen

B. Fill in the blanks.

1. Coleorhiza, coleoptile
2. radicle, above
3. *Rhizophora*
4. quiescent/dormant
5. *Amorphophallus*

C. Match the items in Column A with those in Column B and write down the matching pairs.

1. d. 2. c. 3. e. 4. b. 5. a.

D. State whether the following statements are True or False.

1. False 2. True 3. True 4. False 5. True

E. Study the figure given alongside and answer the following questions.

1. Epigeal germination
2.
 - i. Under favourable conditions the seed absorbs water, swells up, the seed coat ruptures and the radicle grows downwards to form the root system.
 - ii. The hypocotyl elongates, becomes straight and pushes the cotyledon into the air above the soil. The two cotyledons form the first green leaves.
 - iii. The young leaves unfold at the tip of the epicotyl and start preparing food for the plant through photosynthesis. The cotyledons wither and slowly fall off.
3. Bean, cotton, castor