

## Multiple choice Questions:

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

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

- |              |                                     |              |                          |
|--------------|-------------------------------------|--------------|--------------------------|
| (i) Radicle  | <input checked="" type="checkbox"/> | (ii) Plumule | <input type="checkbox"/> |
| (iii) Tegmen | <input type="checkbox"/>            | (iv) Hilum   | <input type="checkbox"/> |

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

- |              |                          |              |                                     |
|--------------|--------------------------|--------------|-------------------------------------|
| (i) Radicle  | <input type="checkbox"/> | (ii) Plumule | <input checked="" type="checkbox"/> |
| (iii) Tegmen | <input type="checkbox"/> | (iv) Hilum   | <input type="checkbox"/>            |

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

- |             |                                     |           |                          |
|-------------|-------------------------------------|-----------|--------------------------|
| (i) Bean    | <input type="checkbox"/>            | (ii) Pea  | <input type="checkbox"/> |
| (iii) Maize | <input checked="" type="checkbox"/> | (iv) Gram | <input type="checkbox"/> |

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

- |                |                                     |               |                          |
|----------------|-------------------------------------|---------------|--------------------------|
| (i) Epigeal    | <input checked="" type="checkbox"/> | (ii) Hypogeal | <input type="checkbox"/> |
| (iii) Perigeal | <input type="checkbox"/>            | (iv) Progeal  | <input type="checkbox"/> |

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

- |                |                                     |               |                          |
|----------------|-------------------------------------|---------------|--------------------------|
| (i) Epigeal    | <input checked="" type="checkbox"/> | (ii) Hypogeal | <input type="checkbox"/> |
| (iii) Perigeal | <input type="checkbox"/>            | (iv) Progeal  | <input type="checkbox"/> |

(f) Pollen is produced in the:

- |              |                          |             |                                     |
|--------------|--------------------------|-------------|-------------------------------------|
| (i) Filament | <input type="checkbox"/> | (ii) style  | <input type="checkbox"/>            |
| (iii) Pistil | <input type="checkbox"/> | (iv) Anther | <input checked="" type="checkbox"/> |

(a) Reproductive whorls of a flower are:

- |                          |                                     |
|--------------------------|-------------------------------------|
| (i) Stamens and carpels  | <input checked="" type="checkbox"/> |
| (ii) Sepals and petals   | <input type="checkbox"/>            |
| (iii) Sepals and stamens | <input type="checkbox"/>            |
| (iv) Petals and carpels  | <input type="checkbox"/>            |

(b) Which one of the following is a false fruit?

- |              |                          |            |                                     |
|--------------|--------------------------|------------|-------------------------------------|
| (i) Tomato   | <input type="checkbox"/> | (ii) Apple | <input checked="" type="checkbox"/> |
| (iii) Potato | <input type="checkbox"/> | (iv) Pea   | <input type="checkbox"/>            |

(c) In a seed, food is generally stored in:

- |             |                          |                               |                                     |
|-------------|--------------------------|-------------------------------|-------------------------------------|
| (i) Radicle | <input type="checkbox"/> | (ii) Plumule                  | <input type="checkbox"/>            |
| (iii) fruit | <input type="checkbox"/> | (iv) cotyledons or endosperms | <input checked="" type="checkbox"/> |

## Short Answer question.

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

1. Testa: It is the outer exposed part of the seed.

2. Plumule: It is located between the two cotyledons and develops into a root.

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 is required for germination.
5. cotyledon: It stores the food material which is used by the seedling for growth.

2. Name the following:

- (a) A seed which shows hypogeal germination.  
A- Pea.
- (b) A monocot seed.  
A- maize grain.
- (c) A dicot seed.  
A- Bean seed.
- (d) A seed which shows epigeal germination.  
A- Bean seed.