

1.is a physiological process of shedding of organs like leaves, flowers, fruits and seeds from the parent plant body.
2. The protective covering over radical during the germination of seeds is.....
3. The process of weakening the seed coat to break the dormancy is called.....
4. The receptor that is sensitive to light is called

5. can be defined as the sum of all the biochemical reactions carried out by an organism.
6. Which of the following is a type of seed dormancy:
 - a) Innate dormancy
 - b) Enforced dormancy
 - c) Induced dormancy
 - d) All the above
7. As sessile organisms, plants must cope with abiotic stress such as:
 - a) Soil salinity
 - b) Extreme temperatures
 - c) drought
 - d) All the above
8. Which of the following is not a secondary metabolite:
 - a) Amino acids
 - b) Gum
 - c) Perfume
 - d) Spices
9. Most seeds consist of:
 - a) Embryo
 - b) endosperm
 - c) Seed coat
 - d) All the above
10. Which of the following hormones retard abscission:
 - a) Auxin
 - b) Cytokinin
 - c) Both
 - d) None
11. Seed dormancy is triggered by:
 - a) Indole-3-ethanol
 - b) Absciscic acid
 - c) Carbon dioxide
 - d) None of the above

(3)

12. is a plant hormone generally present in the gaseous state.

- a) Ethylene b) Ethane
- c) Argon d) None of the above

Section-B

Note:- Attempt any five questions. Each question carries two marks.

Q. II. Very Short Answer Type (25-30 Words) 2x5

- 1. What is seed maturation?
- 2. What is meant by Stress physiology?
- 3. Define imbibition.
- 4. Give names of any four Neurotransmitters in plants.
- 5. Give names of any four Alkaloidal metabolites.
- 6. What is meant by leaf senescence?
- 7. What hormones are required in seed germination?

Section-C

Note:- Attempt any five questions. Each question carries four marks.

H-6648

PTO

(4)

Q.III. Short Answer Type (250 Words)

4x5

- 1. Describe the role of antioxidants in plants.
- 2. Plant senescence and its characteristics
- 3. Explain the mechanism of oxidative stress tolerance ion plants.
- 4. Discuss the factors regulating seed dormancy.
- 5. Describe nitrosative stress.
- 6. Discuss seed dormancy and its importance.
- 7. Explain the types of seed germination.

Section-D

Note:- Attempt any three questions. Each question carries ten marks.

Q.IV. Essay type (more than 500 Words)

3x10

- 1. Explain the concept of PCD and its types in plants during vegetative and reproductive stages.
- 2. Explain Secondary metabolites and their biotechnological aspects.

H-6648

PTO

(5)

3. Explain (Any two):

- a) Production of transgenic fruits
- b) Physiology of seed development
- c) Metabolic engineering in the production of pharmaceuticals

4. Describe in detail about the process of fruit development and ripening

Or

Explain the biochemical mechanism of plants chemical war against other plants and animals.