

HSE2KROXI

9319 - A

BIOLOGY

(Botany)

(Long Answer Type Questions)

1. Explain with the help diagram the development of a mature embryo sac from a megaspore mother cell in an angiosperm

Or

Pollination is an important phenomenon in the life of a flowering plant. Describe the agencies responsible for this.

2. A homozygous tall pea plant with green seeds is crossed with a dwarf pea plant with yellow seeds.

(a) What would be the phenotype and genotype of F_1

(b) Work out phenotypic and genotypic ratio of F_2 generation with the help of checker board.

Or

Discuss the characteristics of genetic code.

(Short Answer Type Questions)

3. With the help of an example, describe co-dominance.

4. Explain the terms :

(i) Explant (ii) Callus (iii) Micropropagation.

5. Write short note on Bt. Cotton.

6. Explain the concept of pyramid of numbers.

(Very Short Answer Type Questions)

7. Name the interaction in each of the following:

(1) *Cuscuta* growing on a shoe flower plant.

(ii) Mycorrhizae living on the roots of higher plants.

8. What is Ecological Niche ?

9. Distinguish between :

Endangered, Vulnerable and rare species.

10. Which is the major air pollutant ? Give its source.

(Objective Type Questions)

11. Embryo sac is found in :

(a) Endosperm (b) Embryo (c) Ovules (d) Seed

12. In the flowering plants, after ovary develops into fruit and mature into seeds.

13. Wrinkled seeds is a dominant trait in garden pea. (True/False)

14. Removal of anthers from a bisexual flower to make it a female flower (Give the technical one word)

15. Define Predation