

**MAYILADUTHURAI DISTRICT
SECOND REVISION TEST, FEBRUARY - 2023**

Standard - XII

BIOLOGY

BIO-BOTANY

TIME: 1:30 hrs

**Marks: 35
8X1=8**

I. Answer all the questions:

PART-A

1. Phenotypic ratio of dominant epistasis -----
a) 9:3:4 b) 12:3:1 c) 9:7 d) 9:6:1
2. Changing the codon AGC and AGA represents -----
a) Frameshift mutation b) Nonsense mutation c) Missense mutation d) Deletion mutation
3. First cell of male gametophyte in Angiosperm is...
a) Microspore b) Megaspore c) Nucleus d) Primary Endosperm Nucleus
4. Golden rice contain
a) Vitamin - D b) Vitamin - C c) Vitamin - B d) Vitamin - A
5. Virus free plants are developed from -----
a) Meristem culture b) Organ culture c) Nucleus culture d) Cell culture
6. Solar energy used by green plants for photosynthesis is only
a) 2-8 % b) 3-10 % c) 2-10 % d) 2-9 %
7. SO₂ Pollution indicator -----
a) Lotus b) Lily c) Jasmine d) Rose
8. Example for Mimicry -----
a) Butterflies b) *Phyllium frondosum* c) Moth d) *Habenaria*

II. Answer any four questions:

PART-B

4X2=8

9. What is Mellitophily?
10. Define - Lethal allele.
11. What are Ecological equivalents?
12. What is Phytoremediation?
13. What is the difference between missense and nonsense mutation?
14. Productivity of profundal zone will be low. Why?

III. Answer any three questions:

PART-C

3X3=9

(Question no: 17 is compulsory)

15. List out the functions of Tapetum.
16. What are the reasons for Mendel's successes in his breeding experiment?
17. What do you know about the word pBR 322?
18. Give an account on Cryopreservation.
19. What is Albedo effect or Green House effect and write their effects?

IV. Answer any two questions:

PART-D

2X5=10

20. a) Discuss the steps involved in Microsporogenesis.
b) Explain dihybrid cross.
21. a) What is soil profile? Explain the characters of different soil horizons.

(or)

b) Various stages of succession are given below. From that rearrange them accordingly. Find out the type of succession and explain in detail. Reed-swamp stage, phytoplankton stage, shrub stage, submerged plant stage, forest stage, submerged free floating stage, marsh meadow stage.
