

PART - I
(BIO-BOTANY)

SECTION - 1

1. **Deforestation does not lead to ____ .**
(a) alteration of local weather conditions
(b) quick nutrient cycling
(c) destruction of natural habitat weather conditions
(d) soil erosion
2. **Cardamom belongs to the family ____ .**
(a) Solanaceae (b) Piperaceae
(c) Fabaceae (d) Zingiberaceae
3. **The ideal soil for Cultivation is :**
(a) Loamy soil (b) Clayey soil
(c) Sandy soil (d) Silt soil
4. **Virus free plants are developed from :**
(a) Meristem culture
(b) Cell suspension culture
(c) Protoplast culture
(d) Organ culture
5. **____ is called as "Father of Indian Green Revolution".**
(a) M.S. Swaminathan (b) P. Maheswari
(c) Mendel (d) Nel Jayaraman
6. **Tephrosia purpurea is a ____ .**
(a) Bio-herbicide (b) Bio-fertilizer
(c) Green manure (d) Bio-pesticide
7. **Which of the following represent Megagametophyte ?**
(a) Nucellus (b) Ovule
(c) Endosperm (d) Embryo sac
8. **The bacteria responsible for causing Crown Gall :**
(a) Escherichia coli
(b) Bacillus subtilis
(c) Bacillus thuringiensis
(d) Agrobacterium tumefaciens

SECTION - 2

9. What is Stomium ?
10. Give the types of Synapsis.
11. Name the chemicals used in Gene Transfer.
12. What is PAR ?
13. Differentiate Primary introduction from Secondary introduction.
14. What is Co-evolution ?

SECTION – 3

15. Differentiate Grafting and Layering.
16. List any three significance of ploidy.
17. Give four examples for plants cultivated in commercial agroforestry.
18. What are the materials used to grow micro-organism like Spirulina ?
19. Write short notes on Bio-monitoring.

SECTION – 4

20. (a) Give the characteristic features of Anemophilous plants.

OR

(b) Explain the incomplete dominance with example.

21. (a) Enumerate the anatomical adaptations of Xerophytes.

OR

(b) Give an account of active principle and medicinal values of any two plants you have studied.

PART-II**(BIO-ZOOLOGY)****SECTION – 1**

22. Patau's Syndrome is also referred to as :

- (a) 13 – Trisomy (b) 18 - Trisomy
(c) Turner's Syndrome (d) 21 - Trisomy

23. If Buds are formed on the outer surface of the parent body, it is called as :

- (a) Gemmules (b) Endogenous budding
(c) Fragmentation (d) Exogenous budding

24. Colostrum is rich in :

- (a) IgD (b) IgE
(c) IgM (d) IgA

25. Interferons are :

- (a) anti-biotics
(b) anti-bacterial substances
(c) anti-fungal substances
(d) anti-viral substances

26. Contraceptive pills contain :

- (a) Relaxin and prolactin
(b) Progesterone and estrogen
(c) Progesterone and relaxin
(d) Estrogen and relaxin

27. The Athlete's foot disease in human is caused by :

- (a) Protozoa (b) Virus
(c) Fungi (d) Bacteria

28. The animals that are at high risk of extinction due to habitat destruction is :

- (a) Amphibians (b) Mammals
(c) Echinoderms (d) Birds

29. Enzyme used for removing oily stains from the clothes :

- (a) Cellulase (b) Pectinase
(c) Protease (d) Lipase

SECTION - 2

30. What are the three layers of uterine wall ?

31. Which are called as non-sense codons in genetic code ?

32. Differentiate Convergent Evolution and Divergent Evolution.

33. Name any four human viral diseases.

34. Give the expansion of :

- (a) CFC
(b) PAN

35. What are Stenotherms ? Give examples.

SECTION – 3

36. What is meant by regeneration ? Give example.

37. Mention any three applications of karyotyping.

38. What is single cell protein ? Write its uses.

39. What are the differences between in-situ and ex-situ conservation ?

40. What are the multipotent cells involved in replenishing adult tissue ? What is the rich source for it ?

SECTION - 4

41. (a) Describe the structure of human sperm with a neat labelled diagram.

OR

(b) Explain the structure of immunoglobulin with suitable diagram.

42. (a) Explain the structure of RNA which plays a vital role in protein synthesis by transferring amino acids with diagram.

OR

(b) List out the human activities causing biodiversity loss.

