

B.Sc. Semester-VI (Honours) Examination, 2021 (CBCS)
Subject: Botany
Paper: DSE-3 (Phytoremediation and Immunology)

Time: 2Hrs

Full Marks: 40

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.

Q-A: Answer any eight from the following questions:

5 X 8 = 40

1. Describe briefly the basic structure of an antibody molecule. What are hypervariable regions?
2. Explain any antigen processing pathway on APC.
3. Explain the basic difference between humoral and cell mediated immunity.
4. Describe the classical pathway for complement activation.
5. Write a short note on RIA.
6. Give an outline classification on types of vaccines.
7. Briefly compare the structure of B and T cells.
8. Briefly describe the importance of phytochelatins in phytoextraction.
9. Write short notes on phytodegradation and phytostimulation.
10. What are the different types of metallophytes? Describe any one of them.

B.Sc. Semester-VI (Honours) Examination - 2021 (CBCS)

Subject: Botany

Paper: DSE-3 (Plant Evolution and Biodiversity)

Time: 2 Hrs

Full Marks: 40

**The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words
as far as practicable.**

Q-A: Answer any eight of the following questions:

5X8 = 40

1. Point out the adaptations of plants growing on low nutrient soils.
2. Trace the timing of evolution of plants using C₄ and CAM.
3. Describe the steps of formation of the first cell.
4. From which lineage did angiosperms evolve? Cite any two important evidences in support of your answer.
5. What are the different lineages of Core Eudicots? Discuss any one of them.
6. What do you mean by archetypes of plants? Cite at least eight archetypes.
7. Compare the distributional features of flowering plants in basal groups and derived groups.
8. Write a short note on neutral theory of molecular evolution.
9. Briefly describe the characteristics of island plants.
10. Describe briefly the RNA world hypothesis.

B. Sc. Sem-VI, Examination (Hons), 2021(CBCS)

Subject:- Botany

Paper- DSE-3

(Marine Biology and Phyco-technology)

Time: 2 hours

FM- 40

Answer any eight questions:

5x8=40

1. What are Phycocolloides? Give a brief account of its algal sources.
2. What are the important seaweeds cultivated in India? Mention the places and their uses.
3. Make a note on the distribution of seaweeds in relation to its depth in India.
4. Why are diatoms important in marine algal ecology? Explain.
5. Mention H₂ producing algae explaining its process of production.
6. What are Raceway ponds? Which algae are cultivated in such type of ponds?
7. What are the medicinal uses of seaweeds?
8. What is the status of microalgae cultivation in India?
9. Give an account of harmful seaweeds.
10. Give an account of traditional uses of marine algae in India.