

B.Sc. 6th Semester (honours) Examination, 2020 (CBCS)

Subject : Botany

Paper : DSE-3 (Plant Evolution & 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.**

Answer any eight of the following questions:

5X8 = 40

1. Classify Halophytes with examples according to their salinity tolerance . **5**
2. Briefly describe the angiospermic diversity on the basis of nature of stem and on the basis of life-span. **5**
3. Describe the role of Endo symbiosis in the evolution of Eukaryotes . **5**
4. Briefly describe the Selectionist—Neutralist Debate in Evolutionary Biology. **5**
5. How and where did the first Prokaryotes evolved? **5**
6. How does genetic drift differ from Natural Selection? **5**
7. Characterize Basal angiosperms upto Orders . **5**
8. Describe the evolution of angiosperms (Eudicots) through APG system of classification. **5**
9. Give a brief idea on evolution of land plants from green algae. **5**
10. What are the differences between Artificial Selection and Natural selection. **5**

B.Sc. 6thSemester (Honours) Examination, 2019 (CBCS)

Subject: Botany

Paper: DSE – 3 (Phytoremediation & Immunology)

Time: 2Hrs

Full Marks: 40

Q.1 Answer any eight from the following questions:

5 X 8 = 40

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|---|----------|
| (a) Briefly describe the objectives of Phytoremediation | 5 |
| (b) Write down the types of Phytoremediation and briefly define each type. | 5 |
| (c) What are metalophytes ? briefly describe their role in phytoremediation | 5 |
| (d) Briefly comment on the fate of plants used for Phytoextraction | 5 |
| (e) Write five advantages & five disadvantages of Phytoremediation | 5 |
| (f) Briefly comment on Innate & Adaptive Immunity | 2½+2½ =5 |
| (g) Write down the factors effecting immunogenicity | 5 |
| (h) Briefly elaborate ELISA technique | 5 |
| (i) Comment on the major functions of MHC molecules | 5 |
| (j) Comment on the properties and functions of Cytokine. | 2½+2½ =5 |

B. Sc. Sem-IV (Hons) Examination in Botany 2020

The University of Burdwan

Paper- DSE-3- Marine Biology & Phycotechnology

F. M. 40

Time: 2 hours

Answer any 8 questions:

5 X8 =40

1. What is SCP? Give a brief account of its algal sources.
2. What are Raceway ponds? Explain its merits and demerits.
3. What is agar-agar? What are its Indian sources? Where are they grown?
4. What are Coralline algae? Mention its significance.
5. Mention Bio-ethanol & Biodiesel producing algae explaining the process of production.
6. What is Photo-bioreactor? Mention its important types.
7. What are the medicinal uses of seaweeds?
8. What are the important sea weeds growing in India? Give an account of important taxa along with its distribution.
9. Give an account of harmful dinoflagellates?
10. What are coccolithophorides? How are they important?