



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours Part-I Examination, 2021



BOTANY

PAPER: BOTA-II

Time Allotted: 2 Hours

Full Marks: 50

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer the following questions in brief:
 - (a) Name a pollution sensitive bryophyte. 1
 - (b) Distinguish between Telome and Awesome. 2
 - (c) Distinguish between haplocheilic and Syndetocheilic stomata. 2
 - (d) Define Polyembryony with example. 2
 - (e) Write the scientific names of two separate Gymnosperm yielding drug and resin. 2
 - (f) What is coal-ball? 1

2. Answer any *one* question from the following: 2×1 = 2
 - (a) Comment on the role played by Bryophytes in plant succession citing example.
 - (b) Differentiate between the external features of antheridiophore and archegoniophore of *Marchantia*.

3. Answer any *two* questions from the following: 2×2 = 4
 - (a) Comment on the morphological nature of Rhizophore of *Selaginella*.
 - (b) Differentiate between apogamy and apospory.
 - (c) Why *Lepidodendron* is called Pseudospermatophyta?

4. Answer any *two* questions from the following: 2×2 = 4
 - (a) Write a note on angiospermic character of *Gnetum*.
 - (b) Write down the xerophytic characters depicted by *Pinus* needle.
 - (c) Name the different form genera of the reconstructed Bennettitalean taxon.

5. Answer any *one* question from the following: 2×1 = 2
 - (a) Distinguish between compression and impression.
 - (b) What is Duripartic Preservation? Give example.

6. Describe the internal structure of the Sporophyte of *Funaria* and give a labelled sketch of longitudinal section of capsule. 4+3
- OR**
- State the progressive concept of the evolution of Sporophyte in Bryophytes with example. 7
7. Describe with suitable diagrams the various types of Prothalli found in *Lycopodium*. 7
- OR**
- Discuss the origin of seed habit after onset of heterospory. What is Pre-ovule? 5+2
8. With suitable illustrations describe the Post-fertilization development in *Pinus*. 3+4
- OR**
- State the general characters of Pteridospermales and Cordaitales with two examples of each. Mention the different form genera of *Cordaites*. 2+2+1
+1+1
9. Classify Gondwana land on the basis of floral assemblage. State the preconditions for fossilization. 5+2
- OR**
- Enumerate the climatic condition and plant association through different periods of Mesozoic era. 7

N.B. : Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.