

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours Part-III Examination, 2021

BOTANY

PAPER-VII (REVISED NEW SYLLABUS)

Full Marks: 80

ASSIGNMENT

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

All symbols are of usual significance.

| | Answer any four questions from the following each within 600 words | $20 \times 4 = 80$ |
|----|---|--------------------|
| 1. | Write Hardy-Weinberg law. Mathematically establish the law. Explain the limitations of this law. | 20 |
| 2. | Explain complementary and supplementary gene interaction with suitable example from plants. Write note on human blood groups. | 20 |
| 3. | Describe spliceosome mediated splicing mechanism of eukaryotic mRNA. Distinguish between Group I and Group II splicing mechanism. | 20 |
| 4. | What is DNA sequencing? Briefly describe the Maxam-Gilbert technique of DNA sequencing with explanatory figures. How does it differ from Sanger's method of DNA sequencing? | 20 |
| 5. | What is interspecific hybridization? Discuss the technique of interspecific hybridization. Mention the achievements of this technique. | 20 |

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