



'সমানো মন্ত্র: সমিতি: সমানী'

**UNIVERSITY OF NORTH BENGAL**  
B.Sc. Honours 5th Semester Examination, 2022

**CC11-BOTANY**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

**GROUP-A**

1. Answer any **five** questions: 1×5 = 5
- (a) What is NPC system?
  - (b) What is massulae?
  - (c) What is MGU?
  - (d) Define caruncle with one example.
  - (e) Mention the function of Suspensor.
  - (f) What are pollinia?
  - (g) Define endothelium.
  - (h) Define microgametogenesis.

**GROUP-B**

2. Answer any **three** questions: 5×3 = 15
- (a) Differentiate between: 2½+2½
    - (i) Self- and Cross-pollination
    - (ii) Porogamy and Chalazogamy.
  - (b) Write short note on — in-vitro fertilization 5
  - (c) Why pollen storage is important? Write the different methods of pollen storage. 5
  - (d) Write note on callose deposition and its significance. 5
  - (e) Write notes on: 2½+2½
    - (i) Polyad
    - (ii) Pseudomonad.

**GROUP-C**

3. Answer any **two** questions: 10×2 = 20
- (a) What do you mean by self-incompatibility in plants? Write the methods to overcome self-incompatibility in plants. 2+8
  - (b) Explain the genetics and molecular biology of flower development with suitable diagrams. 10
  - (c) Give an account of megagametogenesis of *Polygonum* sp. with suitable diagrams. 10
  - (d) Discuss the organization and ultrastructure of mature embryo sac with suitable diagram. 10

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