



'সমানো মন্ত্র: সমিতি: সমানী'

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 3rd Semester Examination, 2022

**CC6-TEA SCIENCE**

**CELL BIOLOGY AND PLANT BREEDING**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

1. Answer any **five** from the following: 1×5 = 5
- (a) Who proposed fluid mosaic model of plasma membrane?
  - (b) Name the types of lipids present in cell membrane of animals.
  - (c) Name a cell cycle control protein.
  - (d) What is apoptosis?
  - (e) Name one chemical which can induce polyploidy in plants.
  - (f) What is paracentric inversion?
  - (g) Why mitochondrion is considered semiautonomous?
  - (h) Define nullisomy.
2. Answer any **three** from the following: 5×3 = 15
- (a) Write a short note on internal checkpoints of cell cycle control system. 5
  - (b) What is polyploidy? Write briefly on euploidy and aneuploidy. 1+4
  - (c) Describe the structure of nucleosome. 5
  - (d) Write about the ultrastructure of chloroplast. 5
  - (e) Write about the organization of nuclear pore complex. 5
3. Answer any **two** from the following: 10×2 = 20
- (a) Give a detailed account of chromosomal aberration. 10
  - (b) Discuss Hardy-Weinberg's law. 10
  - (c) Describe the structure and function of plasma membrane. 10
  - (d) Write an overview on cell cycle. 10

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