



‘সমানো মন্ত্র: সমিতি: সমানী’

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 3rd Semester Examination, 2021

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) Define monosomy.
 - (b) Why chloroplast is considered semiautonomous?
 - (c) What do you mean by gene frequency in a population?
 - (d) What is apoptosis?
 - (e) What do you mean by male sterility in plant breeding?
 - (f) What are autopolyploids?
 - (g) Name one protein that regulates cell cycle.
 - (h) What is the function of Nucleolus?

2. Answer any **three** from the following: 5×3 = 15
 - (a) Describe the structure of Nucleosome.
 - (b) Write a short note on cell cycle.
 - (c) What is polyploidy? Write a short note on euploidy.
 - (d) What are the internal checkpoints of cell cycle control? Write briefly.
 - (e) Write about the ultrastructure of Mitochondrion.

3. Answer any **two** from the following: 10×2 = 20
 - (a) Write about the organization of Nuclear Pore Complex.
 - (b) Briefly discuss the ultrastructure and function of plasma membrane.
 - (c) Write a detailed account of chromosomal aberration in plants.
 - (d) Discuss Hardy-Weinberg's Law.

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