

**A-875**

Total Pages : 3

Roll No. ....

**BOT-551**

**M.Sc. BOTANY (MSCBOT)**

**(Cell Biology, Genetics, Biostatistics and Ecology)**

2nd Year Examination, 2024 (June)

Time : 2:00 Hrs.

Max. Marks : 70

**Note :-** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. *Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.*

**Section-A**

**Long Answer Type Questions**      2×19=38

**Note :-** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

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( 1 )

P.T.O.

1. Describe the ultra-structure and functions of plant cells and also explain the plasma membrane with a labeled diagram.
2. Give a detail account on chromosomal Aberrations and their effect on the human body.
3. What is air pollution ? Discuss its causes, effects and control measures.
4. What is ecosystem ? Define its abiotic and biotic components.
5. Write an essay about the application of Computers in Biology.

### **Section–B**

#### **Short Answer Type Questions**      4×8=32

**Note** :- Section ‘B’ contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Write a short note on the polytene chromosome.
2. Write a brief note on the Mendelian law of dominance.
3. Give a brief note on conservation strategies of biodiversity.
4. Describe the Carbon cycle and its importance.

5. What is global warming ? Explain the various factors responsible for climate change ?
6. Describe the ultra-structure and functions of mitochondria with a labeled diagram.
7. What are fluorescence and electron microscopy ? Describe its principles and application.
8. Write a short note on different types of Mutation.

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