P-229

Total Pages: 3 Roll No.

MZO-508

Human Cytogenetic

M.Sc. Zoology (MSCZO)

2nd Semester Examination, 2023 (June)

Time: 2 Hours] [Max. Marks: 35

Note: This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 9\frac{1}{2} = 19)$

1. Describe the different phases of Mitosis.

- **2.** Describe the methods of chromosome analysis.
- **3.** Explain the types of mutation in datail.
- **4.** Explain different modes of inheritance.
- **5.** Explain the procedure for DNA amplication methods in Polymerase Chain Reaction (PCR).

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

- **1.** Explain the basic structure of chromosomes.
- 2. Write short notes on
 - (i) Deletions.
 - (ii) Inversions.
- **3.** Write about dominant mutations.
- **4.** Write about the requirements for culture lab setup.

- **5.** Write about different important parts of microscope.
- **6.** Explain different modes of inheritance.
- **7.** Write the karyotype description.
- **8.** What is the role of chromosome in cell division?