Total Pages: 2 Roll No.

MZO-603

Animal Biotechnology

M.Sc. Zoology (MSCZO-20)

3rd Semester Examination, 2022 (June)

Time: 2 Hours] Max. Marks: 40

Note: This paper is of Forty (40) 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 Ten (10) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 10 = 20)$

- **1.** How are recombinants and transgenic organisms generated? What is the aim of transgenesis?
- **2.** Write in detail about the stages of cryopreservation.

- **3.** Explain in detail the preparation of primary culture.
- **4.** Define various properties of embryonic stem cells.
- 5. Write in detail on the control, testing and storage of media.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Five (05) marks each. Learners are required to answer any Four (04) questions only. (4×5=20)

- **1.** Write a note on application of cell culture.
- **2.** Explain maintenance of cell lines.
- **3.** What is the role of serum in cell culture?
- **4.** Write a note on working of laminar flow.
- **5.** Explain the method employed to generate the first transgenic animal Dolly?
- **6.** Write in brief about Concatamer and chimera.
- 7. Write a short note on Rbl and p53.
- **8.** Elucidate cytoplasmic oncoproteins.