

**P-967**

Total Pages : 3

Roll No. ....

**ZO-552**

**Animal Biotechnology**

M.Sc. Zoology (MSCZO)

2nd Year Examination, 2023 (June)

**Time : 2 Hours]**

**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 answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

**SECTION-A**

**(Long Answer Type Questions)**

**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.

(2×19=38)

1. Explain the role of biotechnology in controlling the environmental pollution.

2. Discuss in detail on the organization of different types of muscles.
3. Write in detail on the control, testing and storage of media.
4. What are adult stem cells ? Explain different sources of adult stem cells.
5. Describe on the maintenance of the cell culture and give suitable examples.

### **SECTION-B**

#### **(Short Answer Type Questions)**

**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. (4×8=32)

1. Explain the method employed to generate the first transgenic animal Dolly?
2. Explain in detail on cellular aspects of tumour cells.
3. Explain in detail on maintenance of cell lines.
4. Give short note for the following :
  - (a) Cell viability
  - (b) Propagation.
  - (c) Cell banks.
  - (d) Tumours of epithelium.

5. Define various properties of embryonic stem cells.
  6. Write in detail about the working of laminar flow.
  7. Explain in detail about selection of medium and serum.
  8. Give short note for the following :
    - (a) Biocontrol agents.
    - (b) Growth factors.
    - (c) Roll of serum in cell culture.
    - (d) Progenitor cells.
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