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Total Pages: 3 Roll No.

MZO-604

Applied Biotechnology

M.Sc. Zoology (MSCZO)

3rd 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. 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 Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only. (2×9½=19)

1. What are the benefits of Agricultural Biotechnology? What are the safety considerations associated with it?

- **2.** Discuss the role of biotechnology in controlling marine pollution.
- **3.** Describe the Industrial applications of microbial biotechnology.
- **4.** Define Immobilized enzymes. Explain the techniques of immobilization in details.
- **5.** Describe the methods used in wastewater treatment.

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.** What is the significance of anaerobic sludge digestion in sewage treatment?
- **2.** Explain the uses of lactase indairy industries?
- **3.** Explain the significance of enzymes in diagnostics?
- **4.** What is bioremediation? Is bioremediation safe?

- **5.** Write notes on sterilization.
- **6.** Write notes on Plastic Degradation and Its Environmental Implications.
- 7. What is biodiesel? What is biodiesel used for?
- **8.** What is a landfill? Why are landfills bad for the environment?