#### A-0115

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## **MZO-604**

## M.Sc. ZOOLOGY (MSCZO)

(Applied Biotechnology)

3rd Semester Examination, Session December 2024

Time: 2:00 Hrs. 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 answers to the questions on the
given answer sheet. No additional (B) answer
sheet will be issued.

### Section-A

# **Long Answer Type Questions** $2 \times 9 \frac{1}{2} = 19$

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.

- Q. 1. Explain fermentation. Discuss different types of fermentation process.
- Q. 2. Write short notes on:
  - (a) SCP
  - (b) Bioremediation.
- Q. 3. What is bioreactor? Explain different types of bioreactors.
- Q. 4. Explain primary, secondary and tertiary waste water treatment process.
- Q. 5. Discuss different types of biofertilizers and their importance.

### Section-B

## **Short Answer Type Questions** $4 \times 4 = 16$

- 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.
- Q. 1. Discuss the scope of biotechnology in different sectors.
- Q. 2. What do you understand by Enzyme immobilization.Discuss its advantage and disadvantage.

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- Q. 3. Explain microbial insecticides with example.
- Q. 4. Discuss the term vermicomposting.
- Q. 5. Briefly discuss the role of microorganisms in environment.
- Q. 6. Define Prebiotics and Probiotics with example.
- Q. 7. Fishes are deeply influenced by marine pollution, Justify this statement.
- Q. 8. Explain briefly microbial degradation of plastics.

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