Total Pages: 3 Roll No. -----

ZO-552

Animal Biotech

M.Sc. Zoology (MSCZO-19)

2nd Year, Examination 2021 (Winter)

Time: 2 Hours Max. Marks: 80

Note: This paper is of Eighty (80) 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 Twenty (20) marks each. Learners are required to answer any two (02) questions only.

 $[2 \times 20 = 40]$

P.T.O.

621 1

- Q.1. What is bioremediation? In what ways it is good tool for environmental clean up?
- Q.2. Explain in detail on preparation of primary cultures.
- Q.3. Write in detail on pathology and tissue diagnosis of benign and malignant tumors.
- Q.4. What do you mean by the term enzyme immobilization and explain any two methods of enzyme immobilization?
- Q.5. What are different culture media for cells and media? What is their significance?

Section - B

(Short-answer-type questions)

Note: Section 'B' contains Eight (08) short-answer-type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only.

$$[4 \times 10 = 40]$$

621 2

| Q.1. | Give an account of in-vitro fertilization. |
|------|-------------------------------------------------------------|
| Q.2. | Give five uses of industrial biotechnology. |
| Q.3. | What are biosensors and explain any two types of biosensor? |
| Q.4. | Write a note on biodegradable plastics. |
| Q.5. | Define various properties of embryonic stem cells. |
| Q.6. | What are the applications of cell culture? |
| Q.7. | Write short on p53 and Rbl. |
| Q.8. | Explain the term gene knock-in and knock out? |
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3