

**K-526**

Total Pages : 3

Roll No. ....

**MZO-504**

**Molecular Biology**

M.Sc. Zoology (MSCZO-20)

1st Semester Examination, 2023 (Dec.)

**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 answers 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 Mobile genetic elements? Give an account of their structure and significance.
2. Define the cancers and what the characteristic feature of cancer.
3. Describe the process of DNA Replication.
4. Explain the process of post transcriptional processing of RNA.
5. Write a Short note on :
  - (a) Splicesome.
  - (b) Wobbel hypothesis.

## **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 are the proto-oncogenes?
2. Explain the various step involved in translation.

3. Write a short note on the :
    - (a) Plasmids.
    - (b) Conjugation.
  4. Write a short note on tumor suppressor gene.
  5. Write a short note on Lac operon.
  6. Explain the gene regulation in Prokaryotes.
  7. What do you understand by Competence?
  8. What do you understand by RNA polymerase and Promoters?
-

