

K-546

Total Pages : 3

Roll No.

MSCZO-507

MOLECULAR BIOLOGY & BIOTECHNOLOGY

M.Sc. Zoology (MSCZO)

2nd Semester Examination, 2023 (Dec.)

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 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 Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. Describe the process of replication in Eukaryotes.
2. Describe the structure and function of different type of RNA.
3. Describe the post-transcriptional modification.
4. Explain in detail the bacterial Artificial Chromosomes.
5. Explain the process of *in vitro* fertilization.

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. Write a short note on :
 - (a) Human gene therapy.
 - (b) Embryo culture.
2. Explain the DNA polymerase synthesis.
3. What is transcription ?
4. What is polyadenylation?

5. Write a short note on :
 - (a) Semi-conservative and semi-discontinuous.
 - (b) Primase and Ligase.
 6. Describe the genetic code.
 7. Explain the gene cloning basic steps.
 8. Write a short note on human embryo transfer.
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