K23P 0511

Reg. No. : .....

Name : .....

II Semester M.Sc. Degree (CBSS – Reg./Supple./Imp.) Examination, April 2023
(2019 Admission Onwards)
ZOOLOGY
ZOO2C05 : Molecular Biology and Molecular Evolution

Time : 3 Hours Max. Marks : 60

I. Answer **any two** of the following :

1) Describe the steps involved in translation.
2) Explain different types of DNA damage repair pathways.
3) Explain the molecular mechanisms of genomic evolution.
4) Give an account of the various enzymes involved in DNA replication. **(2×12=24)**

II. Answer **any two** of the following :

5) Explain the tryptophan operon and how it is regulated.
6) What is the genetic code ? Briefly explain its characteristics.
7) Describe the evolutionary history of haemoglobin.
8) Describe the different classes of repetitive DNA sequences and the biological functions they serve. **(2×8=16)**

III. Write briefly on **any four** of the following :

9) Rolling circle model of DNA replication.
10) Different forms of DNA.
11) Structure of tRNA.
12) RNA splicing.
13) Genetic drift.
14) Macroevolution. **(4×5=20)**