

B. SC. DEGREE END SEMESTER EXAMINATION - MARCH 2023**SEMESTER - 6: ZOOLOGY (CORE COURSE)****COURSE: 15U6CRZOO10 :- GENETICS AND BIOTECHNOLOGY***(Common for Supplementary 2015/2016/2017/2018 Admissions)*

Time: Three Hours

Max. Marks: 60

PART A**Define all questions of the following**

1. Monoclonal antibodies
2. Mutagens
3. Plasmids
4. Single Cell Protein
5. Eugenics
6. Transgenic animals
7. Karyotype
8. Bioremediation

(1 x 8 = 8)

PART B**Answer any Six of the following**

9. What is called electroporation?
10. List the important features of stem cells.
11. What are modifying genes?
12. What is FISH?
13. Write a note on DNA ligase.
14. Differentiate between back cross and test cross.
15. State Lyon hypotheses.
16. Define biopiracy.

(2 x 6 = 12)

PART C**Answer any Four of the following**

17. Define transposable element. Add a note on the mechanism of transposition.
18. Write a note on animal cell culture.
19. Write a brief account on autosomal genetic disorders in man.
20. Explain inborn errors of metabolism.
21. Give a brief account on Mendelian principles of inheritance.
22. Discuss the potential hazards of biotechnology.

(5 x 4 = 20)

PART D

Answer any Two of the following

23. Explain chromosome theory of sex determination.
24. Give a detailed account on extra nuclear inheritance.
25. Explain bacterial gene recombination.
26. Explain the technique and applications of PCR.

(10 x 2 = 20)