

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2023**(Regular/Improvement/Supplementary)****ZOOLOGY : COMPLEMENTARY COURSE FOR BOTANY****GZOL4C04T: GENETICS AND IMMUNOLOGY****Time: 2 Hours****Maximum Marks: 60****SECTION A: Answer the following questions. Each carries *two* marks.****(Ceiling 20 Marks)**

1. Write an account on color blindness.
2. Comment on gynandromorphism.
3. What is genetic code? List the main features of it.
4. Comment on gene expression.
5. Explain the structure of tRNA.
6. What are plasmid vectors?
7. List the potential hazards of genetic engineering.
8. Differentiate between sarcoma and carcinoma.
9. List the major classes of immunoglobulin and their functions.
10. Comment on the origin and function of memory B cells.
11. List the properties of T cell epitope.
12. What is active immunization? Give two examples.

SECTION B: Answer the following questions. Each carries *five* marks.**(Ceiling 30 Marks)**

13. What are chromosomal anomalies? Explain with examples.
14. Describe hormonal influence of sex determination.
15. Write a note on transcription.
16. Explain cloning vectors.
17. What is cancer? Discuss the properties of cancer cells.
18. Explain agglutination inhibition reaction with help of an example.
19. What is bubble baby disease? List the symptoms and types.

SECTION C: Answer any *one* question. Each carries *ten* marks.

20. Discuss the applications, advantages and potential hazards of recombinant DNA technology.
21. What is meant by Immunogenicity? Explain the factors influencing immunogenicity.

(1 x 10 = 10 Marks)