

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2025
(Regular/Improvement/Supplementary)

ZOOLOGY
GZOL6E01T: HUMAN GENETICS

Time: 2 Hours

Maximum Marks: 60

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 marks)

1. What are haplogroups?
2. Comment on the inheritance of Schizophrenia.
3. What is G banding?
4. Define phenocopy. Give an example
5. Comment on the merits and demerits of prenatal sexing.
6. What is Huntington's disease?
7. Give two examples of autosomal recessive disorders. Mention symptoms of each.
8. What are test-tube babies?
9. Write down the genetic basis of X-SCID.
10. Write a note on ecogenetics and its significance.
11. What is meant by meiotic non-disjunction of chromosomes? Mention its consequences.
12. What is congenital adrenal hyperplasia?

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

13. Comment on maternal effect genes and segmentation and pattern formation genes.
14. Write a paragraph on the genotypical and phenotypical features of Burkitt's lymphoma.
15. Write down the genetic consequences of consanguineous marriages.
16. What is pedigree analysis? Explain the symbols used in pedigree tree construction.
17. Give a paragraph on congenital heart diseases.
18. Write a short essay on the characteristics of A to G groups of chromosomes.
19. Write notes on the genetic reasons leading to Marfan's syndrome and Ehlers-Danlos Syndrome. Add notes on the clinical features.

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

20. Describe any five abnormal phenotypes arising in humans occurring due to structural aberrations in chromosomes.
21. Write an essay on the various methods employed in prenatal diagnosis. Add a note on the influence of gene sequencing in future medicine development.

(1 × 10 = 10 Marks)