

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY**

**FIFTH SEMESTER – APRIL 2023**

**UAZ 5502 – GENETICS**

Date: 03-05-2023

Dept. No.

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**PART – A**

Answer ALL questions:

(10x2=20 Marks)

Write a brief note on the following:

1. Atavism
2. Alleles
3. Linked genes
4. Mutation
5. Karyotype
6. Pleiotropism
7. Hardy-Weinberg law
8. Eugenesis
9. Mutagens
10. Transformation

**PART – B**

Answer any FOUR questions

(4x10=40 Marks)

11. Explain about the Mendelian experiments.
12. Write a short note on molecular modelling of crossing over.
13. Explain about the Holliday model of recombination.
14. Write an account on gene mutation.
15. Write short note on pedigree analysis.
16. Give a brief account on Eugenics and Euphenics.

**PART – C**

Answer any TWO questions.

(2x20=40 Marks)

17. Write a detailed account on ABO Blood grouping.
18. Explain about the CIB method and Muller 5 method.
19. Discuss about the Bacterial genetics.
20. Explain about the gene transfer methods by conjugation, transduction and transformation.

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