



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – ADVANCED ZOOLOGY AND BIOTECHNOLOGY

FIFTH SEMESTER – APRIL 2017

AZ 5518- PRINCIPLES OF GENETICS

Date: 22-04-2017
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

Answer ALL the questions (10×2=20)

Define / Explain

1. Define Co-dominance with a suitable example.
2. What is an Allele?
3. Explain MNO blood group.
4. What is Erythrocytosis?
5. Define Conjugation.
6. What is Transduction?
7. Explain Hardy-Weinberg law.
8. What is human karyotyping?
9. Explain Genetic counseling.
10. What is Bioethics?

PART – B

Answer any FOUR of the following (4×10=40)

11. Define gene interaction and explain any one type of genetic interaction
12. Explain the inheritance disorder in human
13. Describe the RNA structure and functions.
14. Define sex linked inheritance in human and explain any 4 types of disorders.
15. Explain the gene manipulation and its consequences.
16. Describe the pedigree analysis.

PART – C

Answer any TWO of the following (2×20=40)

17. Explain Mendel's laws of inheritance with suitable examples.
18. Give an account on multiple alleles with suitable example.
19. Write an essay on Hardy-Weinberg law and the factors affecting it.
20. Describe the bioethics by eugenics, euthenics and euthenics' method.
