

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



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

**FIFTH SEMESTER – NOVEMBER 2017**

**AZ 5513 – GENETICS**

Date: 01-11-2017

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART – A**

**(10 X 2 = 20 marks)**

**ANSWER ALL QUESTIONS:**

1. Define Gene mapping.
2. What is polygenic inheritance?
3. Explain operon concept.
4. Write a note on cytoplasmic heredity.
5. Explain transduction.
6. Differentiate lytic and Lysogenic cycle.
7. Explain pedigree analysis.
8. What is Human Karyotype.
9. Define Amniocentesis.
10. Explain Transposons.

**PART – B**

**(4 X 10 = 40 marks)**

**ANSWER ANY FOUR IN BRIEF:**

11. Explain the Mendelian laws.
12. Describe the structure and function of DNA.
13. Describe the Conjugation and Transformation
14. Explain the life cycle of virus (phage)
15. Explain the Hardy-Weinberg law.
16. Describe the application of genetic principles to animal breeding.

**PART – C**

**(2 X 20 = 40)**

**ANSWER ANY TWO IN DETAIL**

17. Give an account on Multiple alleles of ABO blood group.
18. Describe the inherited genetic disorders in human
19. Explain the sex-linked genes in human.
20. Explain Eugenics, Euphonic and Euthenics.

\*\*\*\*\*