



Date: 27-10-2018  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART A**

**Answer ALL questions**

**(10 x 2 = 20)**

- 1) What is co-dominance with suitable example?
- 2) Define allele.
- 3) Add a note on MNO blood group.
- 4) Comment on erythroblastosis.
- 5) What is crossing over?
- 6) Define transduction.
- 7) Comment on human karyotype.
- 8) Genetic drift- Justify as a factors affecting population genetics
- 9) What is genetic counseling?
- 10) Comment on bioethics.

**PART B**

**Answer any FOUR questions**

**(4 x 10 = 40)**

- 11) Give an account on gene interaction with anyone type of gene interaction.
- 12) Explain ABO blood group.
- 13) Describe multiplication of phage in bacteria.
- 14) Describe inbreeding with suitable example.
- 15) Write a short note on gene therapy
- 16) Describe the DNA repair mechanism.

**PART C**

**Answer any TWO questions**

**(2 x 20 = 40)**

- 17) Describe the application of genetic principles to plant and animal breeding.
- 18) Write the hardy-Weinberg law and explain the factors affecting the Hardy-Weinberg law.
- 19) State the Mendelian law of inheritance with suitable example.
- 20) What is the gene enzyme relation and prove that biochemical mechanism plays vital role in genetic disorder.

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