

CS/2110

Zoo; 302: Paper II : Genetics  
Semester V

10406/NH

Attempt five questions in all selecting two questions from each section (A &B). Section C is Compulsory  
Time 3 Hours M.M.=40

Section : A

1. What is epistasis? Discuss dominant epistasis in detail. 6
2. Discuss gene modifications due to incomplete dominance with example. 6
3. Write short notes on following:
  - A) lethal factors 3
  - B) Pleiotropic gene. 3
4. Explain multiple Alleles with special reference to Blood group inheritance. 6

Section : B

5. What is extranuclear inheritance? Discuss it with special reference to *Mirabilis jalapa*. 6
6. A) Write an account on Population Genetics. 3  
B) Discuss genetic recombination in bacteria. 3
7. Explain recombinant DNA –technology. 6
8. Describe genetic cloning and its applications in medicine and agriculture. 6

Section : C

- 9.
- I. Kappa particles
  - II. Hardy Weinberg Law
  - III. DNA fingerprinting
  - IV. Transduction
  - V. Suppressors
  - VI. Gene frequencies
  - VII. Pseudo- allelism
  - VIII. Duplicate Genes

8X2=16