



P.G. Diploma in Genetics Examination, Aug./Sept. 2010
(Directorate of Distance Education)
GENETICS
Paper – I : Cytogenetics

Time : 3 Hours

Max. Marks : 75

*Note : 1) Answer **any five** questions.*

*2) **All** questions carry **equal** marks.*

*3) **Illustrate wherever necessary.***

1. Explain the ultrastructure of plasma membrane and add a note on different theories.
 2. Describe the process of movement of chromosomes during anaphase. Add a note on the role of motor proteins in anaphase movement.
 3. Write an essay on sex determination and add a note on different types of sex determination.
 4. Explain different types of interaction of genes.
 5. Write critical notes on **any three** of the following :
 - a) Ribosome
 - b) Types of chromosomes
 - c) Linkage maps
 - d) *r-II* locus
 - e) Phases of cell cycle.
 6. Write an essay on extra chromosomal inheritance.
 7. Explain the molecular organization of eukaryotic chromosome.
 8. Write short notes on **any three** of the following :
 - a) Pseudoallelism
 - b) Anaphase Movements
 - c) Dosage compensation in *Drosophila*
 - d) Centrosome
 - e) Recombination.
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