

SARDAR PATEL UNIVERSITY
Programme: BSC (ZOOLOGY)
Semester: V
Syllabus with effect from: June 2013

Paper Code: US05CZOO05	Total Credit: 3
Title Of Paper: Genetics	

Unit	Description in detail	Weighting (%)
1	Mendelism Monohybrid cross Law of segregation Modification of monohybrid phenotypic ratio Dihybrid cross Modification of dihybrid phenotypic ratio Law of independent assortment	
2	Back cross, test cross Epistatic & nonepistatic interaction Multiple allelism & blood group inheritance Lethal genes Cytoplasmic or extranuclear inheritance: Kappa particle in paramecium, Shell coiling in Limnea, Mitochondrial & chloroplast DNA	
3	Sex determination & differentiation Sex linked & sex influenced genes Crossing over Gene linkage	
4	Mutation: classification Nature of mutation Human genetics: pedigree analysis, amniocentesis, twins, disorders due to mutant genes, karyotyping of human chromosomes, banding techniques. Eugenics: positive and negative and Euphenics	

Basic Text & Reference Books:

- Genetics: P S Verma.
- Genetics: M.P.Arora.
- Genetics: P.K.Gupta.
- Genetics: C.Sarin.
- Basic Human Genetics: S.Mange.
- Genetics: R.P.Meyyan
- Molecular biology and Genetics engineering: P.K.Gupta.
- Cell biology, Genetics and Molecular biology: P.S.Verma.

