

B. Sc GENETICS I YEAR

SEMESTER -I

DSC-PAPER-I: TRANSMISSION GENETICS

PAPER I

QUESTION BANK FOR PRACTICALS

DURATION: 3 HOURS

TOTAL-50MARKS

I.MAJOR PRACTICALS

1X20=20MARKS

1. Identification of normal and mutant stocks of Drosophila
2. Problems on Mendelian segregations
3. Problems on Linkage and Mapping of genes
4. Problems on Tetrad analysis in Neurospora
5. Demonstrate the different stages of Mitosis using Onion root tips
6. Demonstrate the different stages of Meiosis using Maize / Grass hopper
7. Preparation of Drosophila Salivary gland chromosome - Polytene chromosomes

II.MINOR PRACTICALS

1X10=10MARKS

1. Problems on Monohybrid cross
2. Problems on Di hybrid cross
3. Problems on Tri hybrid cross
4. Problems on Multiple allelism
5. Chromosome structural aberrations-Deletions, Duplications, Inversions & Translocations
6. Chromosome numerical aberrations- Euploidy & Auto-polyploidy and Allo-polyploidy

III.SPOTTERS/ EXHIBITS

5X2=10MARKS

1. Drosophila eye mutants
2. Male and Female Drosophila's
3. Incomplete Dominance
4. Co-Dominance
5. Pleiotropism
6. Polytene chromosomes
7. Any stage of Mitosis
8. Any stage of Meiosis
9. Chromosome structural morphology
10. Histone proteins
11. Solenoids
12. Phases of Cell cycle
13. Apoptosis
14. Senescence
15. Necrosis
16. Any numerical aberration syndrome
17. Any Pedigree diagram of Genetic disorder, identify the mode of inheritance

IV.RECORD AND VIVA

10MARKS

H. Surekha Rani
Dr. H. Surekha Rani
Assistant Professor
Chairperson - BOS in Genetics
Department of Genetics
Osmania University, Hyderabad-50