**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Session Even Semester**

**(2017-18)**

**Name of the Teacher: Dr. Garima**

**Class: B.Sc. I , Sem II (Paper –B) Period: 5th**

**M.Sc. II, Sem IV (Paper XVIII) Period: 6th (Sat)**

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| **S. No** | **Date From** | **Date Upto** | **Class** | **Topics to be covered** |
| Week 1 | Jan 08 | Jan 13 |  | ---- |
| Week 2 | Jan 15 | Jan 20 | B.Sc.  M.Sc. | Mendel’s law of Dominance, segregation and Independent assortment |
| Allelism and Linkage, Crossing over |
| Week 3 | Jan 22 | Jan 27 | B.Sc.  M.Sc. | Linkages |
| Pleiotropy, Genomic imprinting, Penetrance and Expressivity, Phenocopy, |
| Week 4 | Jan 29 | Feb 3 | B.Sc.  M.Sc. | Cytological interpretation of Mendelism |
| Sex Linkage |
| Week 5 | Feb 5 | Feb 10 | B.Sc.  M.Sc. | Non allelic gene interactions: epistasis, supplementary, complementary &duplicate genes. |
| Genetic Recombination , Molecular Mechanism of Recombination |
| Week 6 | Feb 12 | Feb 17 | B.Sc.  M.Sc | Quantitative inheritance |
| Role of RecA and RecBCD enzymes, Site-specific recombination, |
| Week 7 | Feb 19 | Feb 24 | B.Sc.  M.Sc. | Allelic gene interactions |
| Tetrad analysis |
| Week 8 | Feb 26 | Mar 03 | B.Sc.  M.Sc. | Multiple alleles , Pleiotropic genes |
| Linkage maps |
| **2nd week March (Mid Semester Exam)** | | | | |
| Week 9 | March 12 | March 17 | B.Sc.  M.Sc. | Chromosome theory of heredity, parallelism between chromosome and Mendelian factors |
| Sex limited and Sex influenced characters |
| Week 10 | March 19 | March 24 | B.Sc.  M.Sc. | Sex linked inheritance, |
| Quantitative Genetics : Polygenic inheritance |
| Week 11 | March 26 | March 31 | B.Sc.  M.Sc. | Cytoplasmic or extracellular inheritance |
| Heritability and its measurements, QTL mapping. |
| Week 12 | April 02 | April 07 | B.Sc. M.Sc. | Plastid inheritance in *Mirabilis,* Mitochondrial in yeast |
| Human Genetics : Pedigree analysis, Lod score for linkage testing, Genetic disorders. |
| Week 13 | April 09 | April 14 | B.Sc.  M.Sc. | Genetic variations |
| Population Genetics : Gene pool, Gene frequency, Hardy- Weinberg Law , |
| Week 14 | April 16 | April 21 | B.Sc.  M.Sc. | Mutations: characterstics, types, importance and factors |
| natural selection and migration ; random drift |
| Week 15 | April 23 | April 28 | B.Sc.  M.Sc. | Mutagens DNA, Damage and repair |
| REVISION |
| Week 16 | April 30 | May 05 | B.Sc. M.Sc. | Repair system in prokaryotes and eukaryotes, REVISION |
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