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

**Teaching Plan Session Odd Semester**

**(2017-18)**

**Class: M.Sc. II yr Name of the Teacher: Dr. Deepika Sharma, Dr. Rupali**

**Subject: Molecular Biology Period :Vth**

**Paper : XI Room No : 211**

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| **S. No** | **Date From** | **Date Upto** | | **Topics to be covered** |
| Week 1 | July 22 & July 24 2017 | July 29, 2017 | | --- |
| Week 2 | July 31 2017 | Aug 5, 2017 | | --- |
| Week 3 | Aug 7, 2017 | Aug 12, 2017 | | Cell cycle and Apoptosis & control mechanisms. |
| Week 4 | Aug 14, 2017 | Aug 19, 2017 | | Role of cyclins and cyclin dependent kinases, mechanism of programmed cell death. |
| Week 5 | Aug 21, 2017 | Aug 26, 2017 | | DNA structure (3d);physico-chemical properties A-, B- , Z-DNA. |
| Week 6 | Aug 28, 2017 | Sept 2, 2017 | | Structure and functions of different types of RNA; Biosynthesis of Nucleotides and Biological importance of the nucleotides. |
| Week 7 | Sept 4, 2017 | Sept 9, 2017 | | DNA Replication molecular mechanism. |
| Week 8 | Sept 11, 2017 | Sept 16, 2017 | | types of DNA polymerase, DNA topoisomerase, DNA ligase, DNAase, Reverse transcriptase. |
| Week 9 | Sept 18, 2017 | Sept 23, 2017 | | Transcription factors and machinery, Initiation complex, Transcription activators and repressors |
| Week 10 | Sept 25, 2017 | Sept 29, 2017 | | RNA polymerases, elongation and termination, RNA Processing: RNA editing, Splicing, Polyadenylation, Capping ; RNA transport. |
| **Autumn Break (30 Sept 2017- 09 Oct 2017)**  **Mid Semester Exam (10 Oct 2017 – 17 Oct 2017)** | | | | |
| Week 11 | Oct 18, 2017 | | Oct 21, 2017 | Mechanism of Translation : Structure of ribosomes; initiation, elongation and termination of polypeptide chain. |
| Week 12 | Oct 23, 2017 | | Oct 28, 2017 | Translational proof reading; post-translational processing of polypeptide chain; Inhibitor of protein synthesis. |
| Week 13 | Oct 30, 2017 | | Nov 4, 2017 | Control Functions of the Gene; transcription of operon, lactose and arabinose operons |
| Week 14 | Nov 6, 2017 | | Nov 11, 2017 | Biochemistry and molecular biology of cancer |
| Week 15 | Nov 13, 2017 | | Nov 18, 2017 | Therapeutic interventions of uncontrolled cell growth |
| Week 16 | Nov 20, 2017 | | Nov 25, 2017 | Antigen, antibodies & MHC |
| Week 17 | Nov 27, 2017 | | Dec 1, 2017 | Immunological response; Application of Immunological principles. |

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

**Teaching Plan Session Odd Semester**

**(2017-18)**

**Class: B.Sc. I yr Name of the Teacher: Dr. Deepika Sharma, Dr. Rupali**

**Subject: Cell Biology Period :Vth**

**Paper : B Room No : 218**

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| **S. No** | **Date From** | **Date Upto** | | **Topics to be covered** |
| Week 1 | July 22 & July 24 2017 | July 29, 2017 | | --- |
| Week 2 | July 31 2017 | Aug 5, 2017 | | --- |
| Week 3 | Aug 7, 2017 | Aug 12, 2017 | | Ultrastructure of plant cell & its organelles |
| Week 4 | Aug 14, 2017 | Aug 19, 2017 | | Nucleus & Mitochondria organelles |
| Week 5 | Aug 21, 2017 | Aug 26, 2017 | | Ribosome & Endoplasmic reticulum |
| Week 6 | Aug 28, 2017 | Sept 2, 2017 | | Golgi apparatus & lysosome; Structure & function of Cell wall and plasma membrane |
| Week 7 | Sept 4, 2017 | Sept 9, 2017 | | Structure of chromosome; Giant chromosome |
| Week 8 | Sept 11, 2017 | Sept 16, 2017 | | Chromosomal alterations (deletion, duplication & inversion) |
| Week 9 | Sept 18, 2017 | Sept 23, 2017 | | Translocation; alloploidy and pollyploidy |
| Week 10 | Sept 25, 2017 | Sept 29, 2017 | | Aneuploidy & sex chromosomes |
| **Autumn Break (30 Sept 2017- 09 Oct 2017)**  **Mid Semester Exam (10 Oct 2017 – 17 Oct 2017)** | | | | |
| Week 11 | Oct 18, 2017 | | Oct 21, 2017 | Mitosis & Meiosis in plants |
| Week 12 | Oct 23, 2017 | | Oct 28, 2017 | Synaptonemal complex; DNA structure |
| Week 13 | Oct 30, 2017 | | Nov 4, 2017 | Nucleosome, DNA types and their role; DNA replication |
| Week 14 | Nov 6, 2017 | | Nov 11, 2017 | Structure and concept of gene; Genetic code |
| Week 15 | Nov 13, 2017 | | Nov 18, 2017 | Wobble hypothesis; RNA structure and types |
| Week 16 | Nov 20, 2017 | | Nov 25, 2017 | Transcription & Translation process |
| Week 17 | Nov 27, 2017 | | Dec 1, 2017 | Regualtion of gene expression (Lac &tryptophan operon) |