**Lesson Plan**

**Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh**

**Monthly Teaching Plans- Odd Semester (Semester-V)**

**Session – 2020-21**

**Department- Zoology**

**Names of the Teachers- Dr. Neetu**

**Class- B.Sc. III (Medical)**

**(Single Section)**

**Subject- Zoology**

**Paper–I: Developmental Biology (ZOO-501)**

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| **Month** | **Date** | | | **Topics to be Covered** | | | **Academic Activity Undertaken** |
| **From** | **To** | |
| August | 13.08.2020 | 31.08.2020 | | Gametogenesis with particular reference to differentiation of spermatozoa | | | Online lectures through Google meet, PPT, |
| September | 01.09.2020 | 30.09.2020 | | Vitellogenesis, role of follicle/subtesticular cells in gametogenesis  Egg maturation, egg membranes, polarity of egg | | | Online lectures through Google meet, PPT, |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 01.10.2020** | | | | | | | |
| October | 01.10.2020 | 31.10.2020 | | Fertilization, parthenogenesis  Cleavage: Types of cleavage patterns depending upon amount and distribution of yolk and position of spindle. Blastula and types of blastula. | | | Online lectures through Google meet, PPT, |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 03.11.2020** | | | | | | | |
| November | 01.11.2020 | 30.11.2020 | | Induction: cell to cell interactions, juxtacrine, paracrine, gap junctions; basic concepts of organizers and inducers and their role  Determination and differentiation  Development up to three germ layers in *Herdmania*, *Amphioxus*, frog, chick and rabbit | | | Online lectures through Google meet, PPT, |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.12.2020** | | | | | | | |
| December | 01.12.2020 | 24.12.2020 | | Foetal membranes, their formation and role  Mammalian placenta- its formation, types and functions  **MST** | | | Online lectures through Google meet, PPT, |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 03.01.2021** | | | | | | | |
| January | 01.01.2021 | | 31.01.2021 | | Fate maps of chick and frog embryos. Metamorphosis in *Herdmania* and *Rana* (frog) | Online lectures through Google meet, PPT, | |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.02.2021** | | | | | | | |
| February | 01.02.2021 | | 10.02.2021 | | **REVISION** |  | |

**Lesson Plan**

**Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh**

**Monthly Teaching Plans- Even Semester (Semester-VI)**

**Session – 2020-21**

**Department- Zoology**

**Names of the Teachers- Dr. Neetu**

**Class- B.Sc. III (Medical)**

**(Single Section)**

**Subject- Zoology**

**Paper-I: Genetics (ZOO- 601)**

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| **Month** | **Date** | | **Topics to be Covered** | **Academic Activity Undertaken** |
| **From** | **To** |
| April | 01.04.2021 | 30.04.2021 | Mendelism and Mendelian Ratios  Modification of Mendelian ratios Non-allelic gene interaction, Modified F2 ratios (9:7, 9:3:4, 9:3:3:1, 12:3:1, 13:3,15:1, 9:6:1)  Gene modifications due to incomplete dominance, lethal factors (2:1), Pleiotropic genes  Multiple Alleles: Blood group inheritance, eye colour in *Drosophila*, pseudo-allelism  Multiple factors: Qualitative and quantitative characters, inheritance of quantitative traits (skin colour in man) | Lecture method, PPT |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plan** | | | | |
| May | 01.05.2021 | 31.05.2021 | Linkage, crossing over and recombination: Linkage, sex-linked characters, crossing over, frequency of crossing over, cytological basis of crossing over, synaptonemal complex. Recombination in Fungi, (tetrad analysis). | Lecture method, PPT, Videos |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plan** | | | | |
| June | 01.06.2021 | 30.06.2021 | Mutations: Spontaneous and induced mutations, physical and chemical mutagens, Detection of mutations in *Drosophila*. Inborn errors of metabolism in man (Phenylketonuria, Alkaptonuria, Albinism). Somatic mutations and carcinogenesis  Regulation of gene expression in prokaryotes (Operon model) and in eukaryotes  **MST** | Lecture method, PPT, Videos |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plan** | | | | |
| July | 01.07.2021 | 31.07.2021 | Population genetics: Equilibrium of gene frequencies and Hardy Weinberg Law  Genetic recombination in bacteria (conjugation, transduction and transformation), plasmids  Applied Genetics: Recombinant DNA, genetic cloning and its applications in medicine and agriculture, DNA fingerprinting  **Revision and Class test** | Lecture method, PPT |
| **Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plan** | | | | |