**DR. ANJU TANWAR**

**WEEK WISE LESSON PLAN by DR. ANJU TANWAR**

**CLASS AND SECTION: B.Sc. MEDICAL, VIth  Sem, SUBJECT: BOTANY**

**WEEK WISE LESSON PLAN FOR THE MONTH FEBRUARY**

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| **Weeks** | **Topics** |
| **1** | - |
| **2** | Discovery of Enzymes  Nomenclature of Enzymes  Characteristics of Enzymes  Audio-visual demonstration of topics |
| **3** | Concept of Holoenzyme and Apoenzyme  Concept of coenzyme and cofactor  Mechanism of enzyme action  Seminar/ Power point presentation and discussion |
| **4** | Regulation of enzyme activity  Growth and Development  Phases of growth and development  General introduction to plant Hormones  Discovery and mechanism of action of Auxins |
| **5** | Discovery and mechanism of action of Gibberellins  Discovery and mechanism of action of Cytokinin  Discovery and mechanism of action of Absicic acid and Ethylene |

**WEEK WISE LESSON PLAN FOR THE MONTH MARCH**

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| **Week** | **Topics** |
| **1** | - |
| **2** | **HOLI VACATIONS** |
| **3** | Photomorphogenesis  Structure and functions ofLipids  Synthesis of Fatty acids |
| **4** | Beta oxidation of Fats  Saturated and unsaturated Fats  Storage and Mobilization of Fatty acids |
| **5** | Introduction to Nitrogen Fixation  Biology of Nitrogen Fixation  Nitrate Reductase: Importance and Regulation |

**WEEK WISE LESSON PLAN FOR THE MONTH APRIL**

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| **Week** | **Topics** |
| **1** | - |
| **2** | Ammonium assimilation in Plants  Nitrate reduction and Nitrite reduction  Ammonium assimilation in Plants  Ammonia formation and incorporation  Ammonia incorporation |
| **3** | General outline of DNA Recombinant Technology  Tools used in DNA Recombinant Technology  Vectors And Enzymes |
| **4** | Basic steps used in DNA Recombinant Technology  Types of Cloning |
| **5** | Test |

**WEEK WISE LESSON PLAN FOR THE MONTH MAY**

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| **Week** | **Topics** |
| **1** | Genomic Library  c-DNA Library  Transposable elements |
| **2** | Cellular Totipotency  Differentiation of plant tissue culture  Dedifferentiation  Re-differentiation |
| **3** | Biology of *Agrobacterium*  *Agrobacterium* mediated gene transfer  Various steps  Various vectors utilized for gene delivery |
| **4** | Marker genes  Aspects of Plant Tissue Culture  Tissue culture Laboratory visit |
| **5** | Revision of the whole syllabus   * Through audio-visual practice * Diagram practice, Specimen and slide study * Group discussion,Seminars and power point presentations * Oral and written tests |