



# RPS Degree College, Balana (Mahendergarh)

## Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc. (Medical) 4th Sem. (A)

Subject: Inorganic Chemistry

Name of the Faculty : Ms. Sapna

| Week | Lecture                    | Date      | Topics                                                                                                 |
|------|----------------------------|-----------|--------------------------------------------------------------------------------------------------------|
| 1    | 1                          | 16-Jan-20 |                                                                                                        |
|      | 2                          | 17-Jan-20 | Section A: Lanthanoids: electronic structure, oxidation states                                         |
|      | 3                          | 20-Jan-20 |                                                                                                        |
|      | 4                          | 21-Jan-20 | Ionic radii and lanthanoid contraction                                                                 |
|      | 5                          | 22-Jan-20 |                                                                                                        |
|      | 6                          | 23-Jan-20 |                                                                                                        |
|      | 7                          | 24-Jan-20 | Complex formation                                                                                      |
| 2    | 8                          | 27-Jan-20 |                                                                                                        |
|      | 9                          | 28-Jan-20 | Occurrence and isolation of lanthanoid compounds                                                       |
|      | 10                         | 29-Jan-20 |                                                                                                        |
|      | 11                         | 30-Jan-20 |                                                                                                        |
|      | 12                         | 31-Jan-20 | Section B: Actinoids: General features                                                                 |
| 3    | 13                         | 03-Feb-20 |                                                                                                        |
|      | 14                         | 4-Feb-20  | Chemistry of actinoids                                                                                 |
|      | 15                         | 05-Feb-20 |                                                                                                        |
|      | 16                         | 6-Feb-20  |                                                                                                        |
|      | 17                         | 07-Feb-20 | Chemistry of separation of Np, Pu and Am from U                                                        |
| 4    | 18                         | 10-Feb-20 |                                                                                                        |
|      | 19                         | 11-Feb-20 | Comparison of properties of lanthanoids and actinoids with transition elements                         |
|      | 20                         | 12-Feb-20 |                                                                                                        |
|      | 21                         | 13-Feb-20 |                                                                                                        |
|      | 22                         | 14-Feb-20 | Section C: Chemistry of analysis of various acidic radicals                                            |
| 5    | 23                         | 17-Feb-20 |                                                                                                        |
|      | 24                         | 18-Feb-20 | 1st Class Test                                                                                         |
|      | 25                         | 19-Feb-20 |                                                                                                        |
|      | 26                         | 20-Feb-20 |                                                                                                        |
| 6    | 27                         | 24-Feb-20 |                                                                                                        |
|      | 28                         | 25-Feb-20 | Chemistry of analysis of various acidic radicals                                                       |
|      | 29                         | 26-Feb-20 |                                                                                                        |
|      | 30                         | 27-Feb-20 |                                                                                                        |
|      | 31                         | 28-Feb-20 | Chemistry of identification of acidic radicals in typical combinations                                 |
| 7    | 32                         | 02-Mar-20 |                                                                                                        |
|      | 33                         | 3-Mar-20  | Chemistry of identification of acidic radicals in typical combinations                                 |
|      | 34                         | 04-Mar-20 |                                                                                                        |
|      | 35                         | 5-Mar-20  |                                                                                                        |
|      | 36                         | 6-Mar-20  | Chemistry of interference of acidic radicals including their removal in the analysis of basic radicals |
| 8    | 37                         | 9-Mar-20  |                                                                                                        |
|      | 38                         | 11-Mar-20 |                                                                                                        |
|      | 39                         | 12-Mar-20 |                                                                                                        |
|      | 40                         | 13-Mar-20 | Section D: Chemistry of analysis of various groups of basic radicals                                   |
| 9    | 41                         | 16-Mar-20 |                                                                                                        |
|      | 42                         | 17-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
|      | 43                         | 18-Mar-20 |                                                                                                        |
|      | 44                         | 19-Mar-20 |                                                                                                        |
|      | 45                         | 20-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
| 10   | 46                         | 23-Mar-20 |                                                                                                        |
|      | 47                         | 24-Mar-20 | 2nd Class Test                                                                                         |
|      | 48                         | 25-Mar-20 |                                                                                                        |
|      | 49                         | 26-Mar-20 |                                                                                                        |
|      | 50                         | 27-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
| 11   | 51                         | 30-Mar-20 |                                                                                                        |
|      | 52                         | 31-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
|      | 53                         | 01-Apr-20 |                                                                                                        |
|      | 54                         | 3-Apr-20  | Theory of precipitation                                                                                |
|      | 55                         | 06-Apr-20 |                                                                                                        |
| 12   | 56                         | 07-Apr-20 | Co-precipitation and Post precipitation                                                                |
|      | 57                         | 08-Apr-20 |                                                                                                        |
|      | 58                         | 09-Apr-20 |                                                                                                        |
|      | 59                         | 10-Apr-20 | Purification of precipitates                                                                           |
|      | 60                         | 13-Apr-20 |                                                                                                        |
| 13   | 61                         | 14-Apr-20 | Revision                                                                                               |
|      | 62                         | 15-Apr-20 |                                                                                                        |
|      | 63                         | 16-Apr-20 |                                                                                                        |
|      | 64                         | 17-Apr-20 | Revision                                                                                               |
| 14   | 20-Apr-2020 to 24-Apr-2020 |           | Final Sessional Exam                                                                                   |

|  <b>RPS Degree College, Balana (Mahendergarh)</b> |                |                      |                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lesson Plan</b><br>2020-21 (Even Semester)                                                                                      |                |                      |                                                                                                                                        |
| <b>Class: 4th sem Med. A&amp;B</b>                                                                                                 |                |                      |                                                                                                                                        |
| <b>Subject : Biology and Diversity Of Seed Plants</b>                                                                              |                |                      |                                                                                                                                        |
| <b>Name of faculty: Varsha</b>                                                                                                     |                |                      |                                                                                                                                        |
| <b>Week</b>                                                                                                                        | <b>Lecture</b> | <b>Date</b>          | <b>Topics</b>                                                                                                                          |
| 1                                                                                                                                  | 7              | 16/01/20 to 24/01/20 | Taxonomy And Systematics, Fundamental Components Of Taxonomy (identification, Classification, Description Nomenclature And Phylogeny ) |
| 2                                                                                                                                  | 5              | 27/01/20 to 31/01/20 | Role of Chemotaxonomy ,Cytotaxonomy in Relation To Taxonomy                                                                            |
| 3                                                                                                                                  | 5              | 03/02/20 to 07/02/20 | Taximeric in Relation to Taxonomy ,Botanical Nomenclature ,Principles and Rules                                                        |
| 4                                                                                                                                  | 5              | 10/02/20 to 14/02/20 | Principle Of Priority , Keys of Identification of Plants.                                                                              |
| 5                                                                                                                                  | 5              | 17/02/20 to 21/02/20 | Type concept , Taxonomic Ranks                                                                                                         |
| 6                                                                                                                                  |                |                      | 1st Class Test                                                                                                                         |
| 7                                                                                                                                  | 5              | 24/02/20 to 28/02/20 | Salient Features of The System Of Classification Of Angiosperms Proposed by Benthem &Hooker                                            |
| 8                                                                                                                                  | 5              | 02/03/20 to 06/03/20 | Classification Proposed by Engler & Prantl Floral Terms                                                                                |
| 9                                                                                                                                  | 5              | 09/03/20 to 13/03/20 | Malvaceae, Eupobiaceae Rutaceae                                                                                                        |
| 10                                                                                                                                 |                |                      | 2nd Class Test                                                                                                                         |
| 11                                                                                                                                 | 5              | 16/03/20 to 20/03/20 | Fabaceae , Cucurbitaceae                                                                                                               |
| 12                                                                                                                                 | 5              | 23/03/20 to 27/03/20 | Diagnostic features and Economic Importance Of Following Families : Apiaceae ,Asclepiadaceae                                           |
|                                                                                                                                    |                |                      |                                                                                                                                        |

|    |   |                         |                       |
|----|---|-------------------------|-----------------------|
| 13 | 5 | 06/04/20 to<br>10/04/20 | Lamiaceae, Solanceae  |
| 14 | 5 | 30/03/20 to<br>03/04/20 | Asteraceae, Liliaceae |
| 15 | 5 | 13/04/20 to<br>17/04/20 | Poaceae               |
| 16 |   |                         | Final Sessional Test  |



# RPS Degree College, Balana (Mahendergarh)

## Lesson Plan

2019-20 (Even Semester)

**Class and Section: B.Sc. Med. 4th Sem. A & B**

**Subject: Plant Embryology**

**Name of the Faculty : Sakshi**

| Week | Lecture              | Date                 | Topics                                                                                                |
|------|----------------------|----------------------|-------------------------------------------------------------------------------------------------------|
| 1    | 7                    | 16/01/20 to 24/01/20 | Introduction to Flower: Structure of flower, Flower-a modified shoot, Functions of its various parts. |
| 2    | 5                    | 27/01/20 to 31/01/20 | Microsporangium, its wall and dehiscence mechanism.                                                   |
| 3    | 5                    | 03/02/20 to 07/02/20 | Microsporogenesis, pollen grains, types of pollen grains, pollen structure (pollen wall).             |
| 4    | 5                    | 10/02/20 to 14/02/20 | Pollen germination (microgametogenesis), factors affecting pollen germination.                        |
| 5    | 5                    | 17/02/20 to 21/02/20 | Male gametophyte, Pollen-pistil interaction.                                                          |
| 6    | 17/02/20 to 21/02/20 |                      | 1st Class Test                                                                                        |
| 7    | 5                    | 24/02/20 to 28/02/20 | Pollination, types of pollination, agencies and Self incompatibility                                  |
| 8    | 5                    | 02/03/20 to 06/03/20 | Structure of Megasporangium (ovule), its curvature.                                                   |
| 9    | 5                    | 09/03/20 to 13/03/20 | Megasporogenesis and megagametogenesis.                                                               |
| 10   | 5                    | 16/03/20 to 20/03/20 | Female gametophyte (mono, bi, tetrasporic), Double fertilization.                                     |
| 11   | 5                    | 23/03/20 to 27/03/20 | Endosperm, its types, formation of endosperm and its biological importance.                           |
| 12   | 23/03/20 to 27/03/20 |                      | 2nd Class Test                                                                                        |
| 13   | 5                    | 30/03/20 to 03/04/20 | Embryogenesis in Dicot and Monocot, Polyembryony.                                                     |
| 14   | 5                    | 06/04/20 to 10/04/20 | Structure of Dicot and Monocot seed.                                                                  |
| 15   | 5                    | 13/04/20 to 17/04/20 | Fruit types ; Dispersal mechanism in fruits and seeds. Revision.                                      |

### Lesson Plan

|                                     |        |                                                                   |
|-------------------------------------|--------|-------------------------------------------------------------------|
| Name of the Assistant/              |        | Devender kumar                                                    |
| Class and Section:.....             |        | B.Sc. MED-IV SEM                                                  |
| Subject:.....                       |        | Diversity of Chordates II                                         |
| Week                                |        | Topics                                                            |
| 16-01- to<br>17-01-2020             | 2      |                                                                   |
|                                     | Day 1  | Class Amphibia- General characters and syllabus.                  |
|                                     | Day 2  | Origin and Evolutionary tree.                                     |
|                                     |        |                                                                   |
|                                     |        | Sunday                                                            |
| 20-01- to<br>24-01-2020             | 3      |                                                                   |
|                                     | Day 3  | Type study- Frog- (digestive system)                              |
|                                     | Day 4  | Cutaneous respiration, buccopharyngeal and pulmonary respiration. |
|                                     | Day 5  | Sound box                                                         |
|                                     | Day 6  | Circulatory system                                                |
|                                     | Day 7  | Arterial and venous system.                                       |
|                                     |        |                                                                   |
| 4th week<br>27-01- to<br>31-01-2020 |        | Sunday                                                            |
|                                     | Day 8  | Lymphatic system and Brain                                        |
|                                     | Day 9  | Receptors and sense organs                                        |
|                                     | Day 10 | Reproductive system(male)                                         |
|                                     | Day 11 | Female reproductive system                                        |
|                                     | Day 12 | Parental care in Amphibians.                                      |
|                                     |        |                                                                   |
| 03-02- to<br>7/2/2020               | 1      |                                                                   |
|                                     | Day 13 | General characters of Reptiles.                                   |
|                                     | Day 14 | Origin of Reptiles.                                               |
|                                     | Day 15 | Evolutionary tree of Reptiles.                                    |
|                                     | Day 16 | Type study of Hemidactylus(Endoskeleton)                          |
|                                     | Day 17 | Digestive system.                                                 |
|                                     |        |                                                                   |
| 10-02- to<br>14-02-2020             | 2      |                                                                   |
|                                     |        | Sunday                                                            |
|                                     | Day 18 | Respiratory system                                                |
|                                     | Day 19 | Circulatory system.                                               |
|                                     | Day 20 | Central Nervous System                                            |
|                                     | Day 21 | Sense organs.                                                     |
|                                     | Day 22 | Male Reproductive system.                                         |
|                                     |        |                                                                   |

|                         |        |                            |
|-------------------------|--------|----------------------------|
| 17-02- to<br>21-02-2020 | 3      | Sunday                     |
|                         | Day 23 | Ist Class Test             |
|                         | Day 24 | Female Reproductive system |
|                         | Day 25 | Extinct Reptiles.          |

|            |        |                                         |
|------------|--------|-----------------------------------------|
|            | Day 26 | Poisons and Non poisons Snakes.         |
|            | Day 27 | Maha Shivaratri- Holiday                |
|            | 4      |                                         |
|            |        |                                         |
| 2          |        | Sunday                                  |
| 24-02-to   | Day 28 | Poisons apparatus of Snakes.            |
| 28-02-2020 | Day 29 | General characters of Aves.             |
|            | Day 30 | Morphology of pigeon.                   |
|            | Day 31 | Exoskeleton of pigeon.                  |
|            | Day 32 | Development of Feathers.                |
|            |        |                                         |
| 1          |        | Sunday                                  |
| 02-03 to   | Day 33 | Flight Muscles.                         |
| 6/3/2020   | Day 34 | Sternum and Digestive system of Pigeon. |
|            | Day 35 | Respiratory system .                    |
|            | Day 36 | Circulatory system.                     |
|            | Day 37 | C.N.S.                                  |
|            |        |                                         |
| 2          |        | Sunday                                  |
| 09-03 to   | Day 38 | Sense organ.                            |
| 13-03-2020 | Day 39 | Holi- Holiday                           |
|            | Day 40 | Male and Female Reproductive system     |
|            | Day 41 | Flight Adaptations and Bird Migration.  |
|            | Day 42 | General Characters of Mammals.          |
|            |        |                                         |
| 3          |        | Sunday                                  |
|            | Day 43 | Type study of Rat(Morphology)           |
| 16-03- to  | Day 44 | Skeleton and Digestive system.          |
| 20-03-2020 | Day 45 | Respiratory System                      |

|                        |   |        |                                 |
|------------------------|---|--------|---------------------------------|
|                        |   | Day 46 | Circulatory system              |
|                        |   | Day 47 | Lymphatic system                |
|                        |   |        |                                 |
| 23-03 to<br>27-03-2020 | 4 |        | Sunday                          |
|                        |   | Day 48 | 2nd Class Test                  |
|                        |   | Day 49 | Nervous system                  |
|                        |   | Day 50 | Cranial and Spinal Nerves.      |
|                        |   | Day 51 | Sense organs                    |
|                        |   | Day 52 | Eyes and Ears of Rat.           |
|                        |   |        |                                 |
| 30-03 to<br>3/4/2020   | 1 |        | Sunday                          |
|                        |   | Day 53 | Endocrine system                |
|                        |   | Day 54 | Male Reproductive system        |
|                        |   | Day 55 | Female Reproductive system      |
|                        |   | Day 56 | Ram Navmi Holiday               |
|                        |   | Day 57 | Adaptive Radiations in Mammals. |
|                        |   |        |                                 |
| 06-04 to<br>10/4/2020  | 2 |        | Sunday                          |
|                        |   | Day 58 | Dentition.                      |
|                        |   | Day 59 | Dental Formula of Animals       |
|                        |   | Day 60 | Thyroid Gland.                  |
|                        |   | Day 61 | Adrenal gland.                  |
|                        |   | Day 62 | Pituitary gland                 |
|                        |   |        |                                 |
| 13-04 to<br>17-04-2020 | 3 |        | <u>Sunday</u>                   |
|                        |   | Day 63 | Pancreas                        |
|                        |   | Day 64 | Thymus and Pineal gland.        |
|                        |   | Day 65 | Revision                        |
|                        |   | Day 66 | Revision                        |
|                        |   | Day 67 | Revision                        |
|                        |   |        |                                 |



|                        |   |        |                       |
|------------------------|---|--------|-----------------------|
| 20-04 to<br>24-04-2020 | 4 |        | Sunday                |
|                        |   | Day 68 | Final Sessional Exams |
|                        |   | Day 69 | Final Sessional Exams |
|                        |   | Day 70 | Final Sessional Exams |
|                        |   | Day 71 | Final Sessional Exams |
|                        |   | Day 72 | Final Sessional Exams |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |
|                        |   |        |                       |

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]



[illegible]

|  <b>RPS Degree College, Balana (Mahendergarh)</b> |                      |                      |                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lesson Plan</b><br>2020-21 (Even Semester)                                                                                      |                      |                      |                                                                                                                                              |
| <b>Class and Section: B.Sc 4th Sem. A and B</b>                                                                                    |                      |                      |                                                                                                                                              |
| <b>Subject: Mammalian Physiology [4.2]</b>                                                                                         |                      |                      |                                                                                                                                              |
| <b>Name of the Faculty : Neha Saini</b>                                                                                            |                      |                      |                                                                                                                                              |
| Week                                                                                                                               | Lecture              | Date                 | Topics                                                                                                                                       |
| 1                                                                                                                                  | 7                    | 16/01/20 to 24/01/20 | Respiration : Exchange of respiratory gases, Transport of gases, lung air volume                                                             |
| 2                                                                                                                                  | 5                    | 27/01/20 to 31/01/20 | oxygen dissociation curve of haemoglobin, Bohr's Effect, Haburger's phenomenon {Chloride Shift }                                             |
| 3                                                                                                                                  | 5                    | 03/02/20 to 07/02/20 | Control/ Regulation of Respiration. Excretion: Patterns of excretory products viz. Ammonotelic, Uricotelic                                   |
| 4                                                                                                                                  | 5                    | 10/02/20 to 14/02/20 | ureotelic, ornithine cycle {kreb's Henseleit cycle} for urea formation                                                                       |
| 5                                                                                                                                  | 5                    | 17/02/20 to 21/02/20 | Urine formation, counter-current mechanism, Osmoregulation, Micturition                                                                      |
| 6                                                                                                                                  | 1st Class Test       |                      |                                                                                                                                              |
| 7                                                                                                                                  | 5                    | 24/02/20 to 28/02/20 | Circulation- Origin, conduction and regulation of heart beat, Cardiac cycle                                                                  |
| 8                                                                                                                                  | 5                    | 02/03/20 to 06/03/20 | Electrocardiogram, Cardiac output, fluid pressure and flow pressure in closed                                                                |
| 9                                                                                                                                  | 5                    | 09/03/20 to 13/03/20 | Blood flow in oen circulatory system ; Composition and functions of blood and lymph ; Mechanism of coagulation of blood, coagulation factors |
| 10                                                                                                                                 | 2nd Class Test       |                      |                                                                                                                                              |
| 11                                                                                                                                 | 5                    | 16/03/20 to 20/03/20 | Neural Integration- Nature, Origin and Propagation of nerve impulse along with medullated and Non-medullated nerve                           |
| 12                                                                                                                                 | 5                    | 23/03/20 to 27/03/20 | Conduction of nerve impulse across synapse, Structure and mechanism of hormone action,                                                       |
| 13                                                                                                                                 | 5                    | 06/04/20 to 10/04/20 | physiology of hypothalamus, pituitary, thyroid, parathyroid, Adrenal, pancreas and gonads                                                    |
| 14                                                                                                                                 | 5                    | 30/03/20 to 03/04/20 | Spermatogenesis, Capacitation of Spermatozoa, Ovulation, formation of corpus luteum                                                          |
| 15                                                                                                                                 | 5                    | 13/04/20 to 17/04/20 | oestrous- anoestrous cycle, Menstrual cycle in female ; Fertilization, implantation and gestation                                            |
| 16                                                                                                                                 | Final Sessional Test |                      |                                                                                                                                              |



|  <b>RPS Degree College, Balana (Mahendergarh)</b> |                |             |                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lesson Plan</b>                                                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Class and Section: B.Sc. Mediacl 4th Sem. A</b>                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Subject: Physical Chemistry</b>                                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Name of the Faculty : Dr. Rajesh Kumar Dhiman</b>                                                                               |                |             |                                                                                                                                                                                   |
| <b>Week</b>                                                                                                                        | <b>Lecture</b> | <b>Date</b> | <b>Topics</b>                                                                                                                                                                     |
| 1                                                                                                                                  | 1              | 20.01.2020  | Thermodynamics -III , Introduction                                                                                                                                                |
|                                                                                                                                    | 2              | 23.01.2020  | Second Law of thermodynamics , Need of the law, Different statement of 2nd laws Carnot's cycle and its efficiency                                                                 |
| 2                                                                                                                                  | 3              | 27.01.2020  | Carnot's theorem, Thermodynamics scale of temperature. Concept of entropy – entropy as a state function                                                                           |
|                                                                                                                                    | 4              | 30.01.2020  | Entropy as a function of V & T, entropy as a function of P & T, entropy change in physical change                                                                                 |
| 3                                                                                                                                  | 5              | 03.02.2020  | Entropy as a criteria of spontaneity and equilibrium. Entropy change in ideal gases and mixing of gases.                                                                          |
|                                                                                                                                    | 6              | 06.02.2020  | Third law of thermodynamics, Nernst heat theorem, statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data, Gibbs and Helmholtz functions |
| 4                                                                                                                                  | 7              | 10.02.2020  | Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities                                                                                                         |
|                                                                                                                                    | 8              | 13.02.2020  | A & G as criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change.                                                                             |
| 5                                                                                                                                  | 9              | 17.02.2020  | Variation of G and A with P, V and T.                                                                                                                                             |
| <b>Ist Class Test</b>                                                                                                              |                |             |                                                                                                                                                                                   |
|                                                                                                                                    | 10             | 20.02.2020  | Electrolytic and Galvanic cells – reversible & Irreversible cells, conventional representation of electrochemical cells. EMF of cell and its measurement                          |
| 6                                                                                                                                  | 11             | 24.02.2020  | Weston standard cell, activity and activity coefficients                                                                                                                          |
|                                                                                                                                    | 12             | 27.02.2020  | Calculation of thermodynamic quantities of cell reaction (G, H & K).                                                                                                              |
| 7                                                                                                                                  | 13             | 02.03.2020  | Types of reversible electrodes – metal- metal ion gas electrode, metal –insoluble salt- anion and redox electrodes                                                                |
|                                                                                                                                    | 14             | 05.03.2020  | Electrode reactions, Nernst equations                                                                                                                                             |
| 8                                                                                                                                  | 15             | 09.03.2020  | Derivation of cell EMF and single electrode potential                                                                                                                             |
|                                                                                                                                    | 16             | 12.03.2020  | Standard Hydrogen Electrodes                                                                                                                                                      |
| 9                                                                                                                                  | 17             | 16.03.2020  | Reference Electrodes                                                                                                                                                              |
|                                                                                                                                    | 18             | 19.03.2020  | Standard electrodes potential                                                                                                                                                     |
| <b>2nd Class Test</b>                                                                                                              |                |             |                                                                                                                                                                                   |
| 10                                                                                                                                 | 19             | 23.03.2020  | Sign conventions, electrochemical series and its applications.                                                                                                                    |
|                                                                                                                                    | 20             | 26.03.2020  | Concentration cells with and without transference                                                                                                                                 |
| 11                                                                                                                                 | 21             | 30.03.2020  | Liquid junction potential, application of EMF measurement i.e. valency of ions                                                                                                    |
|                                                                                                                                    | 22             | 02.04.2020  | <b>Holiday</b>                                                                                                                                                                    |
|                                                                                                                                    | 23             | 06.04.2020  | Solubility product activity coefficient, potentiometric titration (acid- base and redox)                                                                                          |
| 12                                                                                                                                 | 24             | 13.04.2020  | Determination of pH using Hydrogen electrode                                                                                                                                      |
|                                                                                                                                    | 25             | 16.04.2020  | Quinhydrone electrode and glass electrode by potentiometric methods                                                                                                               |
| <b>Final Sessional Test</b>                                                                                                        |                |             |                                                                                                                                                                                   |



## RPS Degree College, Balana (Mahendergarh)

### Lesson Plan

2019-20 (Even Semester)

**Class and Section: B.Sc. (Medical) 4th Sem. (B)**

**Subject: Inorganic Chemistry**

**Name of the Faculty : Ms. Sapna**

| Week | Lecture                    | Date      | Topics                                                                                                 |
|------|----------------------------|-----------|--------------------------------------------------------------------------------------------------------|
| 1    | 1                          | 16-Jan-20 |                                                                                                        |
|      | 2                          | 17-Jan-20 | Section A: Lanthanoids: electronic structure, oxidation states                                         |
|      | 3                          | 20-Jan-20 |                                                                                                        |
|      | 4                          | 21-Jan-20 | Ionic radii and lanthanoid contraction                                                                 |
|      | 5                          | 22-Jan-20 |                                                                                                        |
|      | 6                          | 23-Jan-20 |                                                                                                        |
|      | 7                          | 24-Jan-20 | Complex formation                                                                                      |
| 2    | 8                          | 27-Jan-20 |                                                                                                        |
|      | 9                          | 28-Jan-20 | Occurrence and isolation of lanthanoid compounds                                                       |
|      | 10                         | 29-Jan-20 |                                                                                                        |
|      | 11                         | 30-Jan-20 |                                                                                                        |
|      | 12                         | 31-Jan-20 | Section B: Actinoids: General features                                                                 |
| 3    | 13                         | 03-Feb-20 |                                                                                                        |
|      | 14                         | 4-Feb-20  | Chemistry of actinoids                                                                                 |
|      | 15                         | 05-Feb-20 |                                                                                                        |
|      | 16                         | 6-Feb-20  |                                                                                                        |
|      | 17                         | 07-Feb-20 | Chemistry of separation of Np, Pu and Am from U                                                        |
| 4    | 18                         | 10-Feb-20 |                                                                                                        |
|      | 19                         | 11-Feb-20 | Comparison of properties of lanthanoids and actinoids with transition elements                         |
|      | 20                         | 12-Feb-20 |                                                                                                        |
|      | 21                         | 13-Feb-20 |                                                                                                        |
|      | 22                         | 14-Feb-20 | Section C: Chemistry of analysis of various acidic radicals                                            |
| 5    | 23                         | 17-Feb-20 |                                                                                                        |
|      | 24                         | 18-Feb-20 | 1st Class Test                                                                                         |
|      | 25                         | 19-Feb-20 |                                                                                                        |
|      | 26                         | 20-Feb-20 |                                                                                                        |
| 6    | 27                         | 24-Feb-20 |                                                                                                        |
|      | 28                         | 25-Feb-20 | Chemistry of analysis of various acidic radicals                                                       |
|      | 29                         | 26-Feb-20 |                                                                                                        |
|      | 30                         | 27-Feb-20 |                                                                                                        |
|      | 31                         | 28-Feb-20 | Chemistry of identification of acidic radicals in typical combinations                                 |
| 7    | 32                         | 02-Mar-20 |                                                                                                        |
|      | 33                         | 3-Mar-20  | Chemistry of identification of acidic radicals in typical combinations                                 |
|      | 34                         | 04-Mar-20 |                                                                                                        |
|      | 35                         | 5-Mar-20  |                                                                                                        |
|      | 36                         | 6-Mar-20  | Chemistry of interference of acidic radicals including their removal in the analysis of basic radicals |
| 8    | 37                         | 9-Mar-20  |                                                                                                        |
|      | 38                         | 11-Mar-20 |                                                                                                        |
|      | 39                         | 12-Mar-20 |                                                                                                        |
|      | 40                         | 13-Mar-20 | Section D: Chemistry of analysis of various groups of basic radicals                                   |
| 9    | 41                         | 16-Mar-20 |                                                                                                        |
|      | 42                         | 17-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
|      | 43                         | 18-Mar-20 |                                                                                                        |
|      | 44                         | 19-Mar-20 |                                                                                                        |
|      | 45                         | 20-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
| 10   | 46                         | 23-Mar-20 |                                                                                                        |
|      | 47                         | 24-Mar-20 | 2nd Class Test                                                                                         |
|      | 48                         | 25-Mar-20 |                                                                                                        |
|      | 49                         | 26-Mar-20 |                                                                                                        |
|      | 50                         | 27-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
| 11   | 51                         | 30-Mar-20 |                                                                                                        |
|      | 52                         | 31-Mar-20 | Chemistry of analysis of various groups of basic radicals                                              |
|      | 53                         | 01-Apr-20 |                                                                                                        |
|      | 54                         | 3-Apr-20  | Theory of precipitation                                                                                |
| 12   | 55                         | 06-Apr-20 |                                                                                                        |
|      | 56                         | 07-Apr-20 | Co-precipitation and Post precipitation                                                                |
|      | 57                         | 08-Apr-20 |                                                                                                        |
|      | 58                         | 09-Apr-20 |                                                                                                        |
|      | 59                         | 10-Apr-20 | Purification of precipitates                                                                           |
| 13   | 60                         | 13-Apr-20 |                                                                                                        |
|      | 61                         | 14-Apr-20 | Revision                                                                                               |
|      | 62                         | 15-Apr-20 |                                                                                                        |
|      | 63                         | 16-Apr-20 |                                                                                                        |
|      | 64                         | 17-Apr-20 | Revision                                                                                               |
| 14   | 20-Apr-2020 to 24-Apr-2020 |           | Final Sessional Exam                                                                                   |



# Lesson Plan

Class and Section: B.Sc.(MED) 4th B

Subject: Organic chemistry

Name of the Faculty : Hitesh Yadav

| Week | Lecture | Date      |
|------|---------|-----------|
| 1    | 1       | 16-Jan-20 |
|      | 2       | 17-Jan-20 |
|      | 3       | 23-Jan-20 |
| 2    | 4       | 24-Jan-20 |
|      | 5       | 30-Jan-20 |
| 3    | 6       | 31-Jan-20 |
|      | 7       | 06-Feb-20 |
| 4    | 8       | 07-Feb-20 |
|      | 9       | 13-Feb-20 |
|      | 10      | 14-Feb-20 |
| 6    | 11,12   |           |
| 7    | 13      | 27-Feb-20 |
|      | 14      | 28-Feb-20 |
| 8    | 15      | 05-Mar-20 |
| 9    | 17      | 06-Mar-20 |
|      | 18      | 12-Mar-20 |
| 10   | 19,20   |           |
| 11   | 21      | 26-Mar-20 |
|      | 22      | 27-Mar-20 |
| 12   | 23      | 02-Apr-20 |
|      | 24      | 03-Apr-20 |
| 13   | 25      | 09-Apr-20 |
|      | 26      | 10-Apr-20 |
| 14   |         |           |
| 15   |         |           |
|      |         |           |
| 16   |         |           |
| 17   |         |           |

| Topics                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Amines Structure and nomenclature of amines, physical properties                                                                                                                                                                                                                                            |
| Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines                                                                                                                                                                                         |
| Preparation of alkyl and aryl amines.                                                                                                                                                                                                                                                                       |
| (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds)                                                                                                                                                                                                            |
| Gabriel phthalimide reaction, Hofmann bromamide reaction.                                                                                                                                                                                                                                                   |
| Electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.                                                                                                                                                                                                                  |
| 1. Diazonium Salts Mechanism of diazotisation,                                                                                                                                                                                                                                                              |
| structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO <sub>2</sub> and CN groups,                                                                                                                                                                                  |
| reduction of diazonium salts to hydrazines,                                                                                                                                                                                                                                                                 |
| coupling reaction and its synthetic application                                                                                                                                                                                                                                                             |
| 1st Class Test                                                                                                                                                                                                                                                                                              |
| 2. Nitro Compounds Preparation of nitro alkanes and nitro arenes and their chemical reactions                                                                                                                                                                                                               |
| Aldehydes and Ketones Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,                                                                                                                     |
| advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate., Physical properties. Comparison of reactivities of aldehydes and ketones. Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, |
| aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction. Mannich reaction Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones,                                                                                                                 |
| 2nd Class Test                                                                                                                                                                                                                                                                                              |
| Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, LiAlH <sub>4</sub> and NaBH <sub>4</sub> reductions.                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                                                                                             |
| revision of section A                                                                                                                                                                                                                                                                                       |
| revision of section B                                                                                                                                                                                                                                                                                       |
| Final Sessional Test                                                                                                                                                                                                                                                                                        |
| Special Class                                                                                                                                                                                                                                                                                               |
| Special Class                                                                                                                                                                                                                                                                                               |
| Final Exam                                                                                                                                                                                                                                                                                                  |

|  <b>RPS Degree College, Balana (Mahendergarh)</b> |                |             |                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lesson Plan</b>                                                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Class and Section: B.Sc. Mediacl 4th Sem. B</b>                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Subject: Physical Chemistry</b>                                                                                                 |                |             |                                                                                                                                                                                   |
| <b>Name of the Faculty : Dr. Rajesh Kumar Dhiman</b>                                                                               |                |             |                                                                                                                                                                                   |
| <b>Week</b>                                                                                                                        | <b>Lecture</b> | <b>Date</b> | <b>Topics</b>                                                                                                                                                                     |
| 1                                                                                                                                  | 1              | 20.01.2020  | Thermodynamics -III , Introduction                                                                                                                                                |
|                                                                                                                                    | 2              | 22.01.2020  | Second Law of thermodynamics , Need of the law, Different statement of 2nd laws Carnot's cycle and its efficiency                                                                 |
| 2                                                                                                                                  | 3              | 27.01.2020  | Carnot's theorem, Thermodynamics scale of temperature. Concept of entropy – entropy as a state function                                                                           |
|                                                                                                                                    | 4              | 29.01.2020  | Entropy as a function of V & T, entropy as a function of P & T, entropy change in physical change                                                                                 |
| 3                                                                                                                                  | 5              | 03.02.2020  | Entropy as a criteria of spontaneity and equilibrium. Entropy change in ideal gases and mixing of gases.                                                                          |
|                                                                                                                                    | 6              | 05.02.2020  | Third law of thermodynamics, Nernst heat theorem, statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data, Gibbs and Helmholtz functions |
| 4                                                                                                                                  | 7              | 10.02.2020  | Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities                                                                                                         |
|                                                                                                                                    | 8              | 12.02.2020  | A & G as criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change.                                                                             |
| 5                                                                                                                                  | 9              | 17.02.2020  | Variation of G and A with P, V and T.                                                                                                                                             |
| <b>Ist Class Test</b>                                                                                                              |                |             |                                                                                                                                                                                   |
|                                                                                                                                    | 10             | 19.02.2020  | Electrolytic and Galvanic cells – reversible & Irreversible cells, conventional representation of electrochemical cells. EMF of cell and its measurement                          |
| 6                                                                                                                                  | 11             | 24.02.2020  | Weston standard cell, activity and activity coefficients                                                                                                                          |
|                                                                                                                                    | 12             | 26.02.2020  | Calculation of thermodynamic quantities of cell reaction (G, H & K).                                                                                                              |
| 7                                                                                                                                  | 13             | 02.03.2020  | Types of reversible electrodes – metal- metal ion gas electrode, metal –insoluble salt- anion and redox electrodes                                                                |
|                                                                                                                                    | 14             | 04.03.2020  | Electrode reactions, Nernst equations                                                                                                                                             |
| 8                                                                                                                                  | 15             | 09.03.2020  | Derivation of cell EMF and single electrode potential                                                                                                                             |
|                                                                                                                                    | 16             | 11.03.2020  | Standard Hydrogen Electrodes                                                                                                                                                      |
| 9                                                                                                                                  | 17             | 16.03.2020  | Reference Electrodes                                                                                                                                                              |
|                                                                                                                                    | 18             | 18.03.2020  | Standard electrodes potential                                                                                                                                                     |
| 10                                                                                                                                 | 19             | 23.03.2020  | Sign conventions, electrochemical series and its applications.                                                                                                                    |
| <b>2nd Class Test</b>                                                                                                              |                |             |                                                                                                                                                                                   |
|                                                                                                                                    | 20             | 25.03.2020  | Concentration cells with and without transference                                                                                                                                 |
| 11                                                                                                                                 | 21             | 30.03.2020  | Liquid junction potential, application of EMF measurement i.e. valency of ions                                                                                                    |
|                                                                                                                                    | 22             | 01.04.2020  | Solubility product activity coefficient, potentiometric titration (acid- base and redox)                                                                                          |
| 12                                                                                                                                 | 23             | 06.04.2020  | Determination of pH using Hydrogen electrode                                                                                                                                      |
|                                                                                                                                    | 24             | 13.04.2020  | Quinhydrone electrode and glass electrode by potentiometric methods                                                                                                               |
|                                                                                                                                    | 25             | 15.04.2020  | Revision                                                                                                                                                                          |
| <b>Final Session Examination</b>                                                                                                   |                |             |                                                                                                                                                                                   |