|  |
| --- |
| **Part-I Semester-1** |
| 1. | ZOOL 101 | Non-Chordata |
| 2. | ZOOL 102 | Tool and Techniques in Biological Science |
| 3. | ZOOL 103 | Comparative Animal Physiology |
| 4. | ZOOL 104 | Biological Chemistry |
| 5. | ZOOL 105 | Practicals |
| **Part-I Semester-2**  |
| 1. | ZOOL 201 | Chordates-Origin and Evolution |
| 2. | ZOOL 202 | Systematics, Biodiversity and Evolution |
| 3. | ZOOL 203 | Genetics and Cytogenetics |
| 4. | ZOOL 204 | Developmental Biology |
| 5. | ZOOL 205 | Practicals |

**M.Sc. Zoology**

**Part-II: Semester-3**

* Two papers ZOOL 301 and ZOOL 302 (Interdisciplinary) are compulsory.
* Two optional papers are to be selected by each student
* One paper from ZOOL 303, ZOOL 304 or ZOOL 305.
* One paper from ZOOL 306, ZOOL 307 or ZOOL 308.

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | ZOOL 301 | Principle of Ecology | Open Elective |
| 2 | ZOOL 302 | Biostatistics and Computational Biology |
| 3 | ZOOL 303 | Biology of Parasitism | Elective Course |
| 4 | ZOOL 304 | Applied Zoology |
| 5 | ZOOL 305 | Epigenetic and Chromatin Biology |
| 6 | ZOOL 306 | Structure and Function of Genes | Elective Course |
| 7 | ZOOL 307 | Animal Behaviour |
| 8 | ZOOL 308 | Molecular Endocrinology |
| 9 | ZOOL 309 | Practical |

**Part-II: Semester-4**

Student will select any one of the four streams, each stream consisting of three papers (courses). Besides this, each student will complete a dissertation, which would be theoretical and not involve any laboratory components.

|  |
| --- |
| Stream 1: Entomology |
| 1 | ZOOL 4101 | Insect Morphology, Physiology & Development |
| 2 | ZOOL 4102 | Ecology, Evolution & Taxonomy |
| 3 | ZOOL 4103 | Economic Entomology |
| 4 | ZOOL 4104 | Dissertation |
| 5 | ZOOL 4105 | Practicals |
| Stream 2: Fish Biology |
| 1 | ZOOL 4201 | Morphology, Physiology & Development of Fishes |
| 2 | ZOOL 4202 | Taxonomy & Ecology of Pisces |
| 3 | ZOOL 4203 | Applied Ichthyology |
| 4 | ZOOL 4204 | Dissertation |
| 5 | ZOOL 4205 | Practicals |
| Stream 3: Cell Biology |
| 1 | ZOOL 4301 | Cytological Techniques |
| 2 | ZOOL 4302 | Cellular organization & Fundamental Processes |
| 3 | ZOOL 4303 | Cell Regulation-Cell communication |
| 4 | ZOOL 4304 | Dissertation |
| 5 | ZOOL 4305 | Practicals |

|  |
| --- |
| Stream 4: Environmental Biology & Toxicology |
| 1 | ZOOL 4401 | Wild Life Biology |
| 2 | ZOOL 4402 | Environmental Chemistry |
| 3 | ZOOL 4403 | Environmental Monitoring &Toxicoloogy |
| 4 | ZOOL 4404 | Dissertation  |
| 5 | ZOOL 4405 | Practical |

**M.Sc. Environmental science**

PART I: Semester – I

1. ENVRN 101 fundamentals of Ecology
2. ENVRN 102 wildlife biology
3. ENVRN 103 environmental chemistry
4. ENVRN 104 tools and techniques in environmental science

PART II: Semester – II

1. ENVRN 201 environmental pollution & monitoring
2. ENVRN 202 environmental impact assessment
3. ENVRN 203 current socio environmental aspects
4. ENVRN 204 environmental microbiology

PART II: Semester – III

1. ENVRN 301 Eco biotechnology And Remote Sensing Theory
2. ENVRN 302 Biostatistics and Computational Biology
3. ENVRN 303 Natural Resources, Conservation and Management Theory
4. ENVRN 304 Environmental Monitoring and Toxicology Theory
5. ENVRN 305 Atmosphere and Global Climate Change Theory
6. ENVRN 306 Environmental Communication and Education Theory
7. ENVRN 307 Culture and Environment Theory
8. ENVRN 308 Biodiversity and Conservation Biology Theory

PART II: Semester – IV

ELECTIVE MODULE:

Student will select two papers out of four papers from ENV 401, ENV 402, ENV 403 and ENV 404.

Besides this, each student will have to present two seminars (Compulsory-405) on current topic in environmental science.

Each student will have to submit an allotted dissertation (ENVRON 406), which would be theoretical and not involve any laboratory work on which viva- voice would be conducted.

1. ENVRON 401 Environment Ethics and Philosophy
2. ENVRON 402 Disaster Management
3. ENVRON 403 Environment Economics, Policies and Law
4. ENVRON 404 Technology, Environment and Society
5. ENVRON 405 Two Seminars (Internal Assessment)
6. ENVRON 406 Dissertation