DEPARTMENT OF ZOOLOGY OF BERHAMPORE GIRLS COLLEGE

**Module wise Syllabus distribution of 4th SEM B.Sc. Zoology GE Course (January to June, 2020)**

**Details about Teachers**

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| **Sl No** | **Name of the Teacher** | **Designation** | **Contact No** | **E mail id** |
| **1** | **Bhaskar Mahanayak (BM)** | **Assistant Professor and Head of the Dept.** | **6295260820** | **bmahanayak@gmail.com** |
| **2** | **Rabiul Hoque (RH)** | **Assistant Professor** | **9609268155** | **rhrabiulhaque486@gmail.com** |
| **3** | **Sarmistha Chattopadhyay (SC)** | **Guest Lecturer** | **9735602335** |  |
| **4** | **Tania Mondal (TM)** | **Guest Lecturer** | **8900548572** | **mondaltania20@gmail.com** |
| **5** | **Sanchari Chatterjee (SCC)** | **Guest Lecturer** | **9609549056** | **sanchar.sylvan@gmail.com** |
| **6** | **Debashree Konar Chowdhury (DKC)** | **Guest Lecturer** | **7031569916** | **debashreekonar@gmail.com** |
| **7** | **Somrita Rudra (SR)** | **Guest Lecturer** | **8016549943** | **somritarudra8@gmail.com** |
| **8** | **Deepsikha Mukherjee (DM)** | **Guest Lecturer** | **6294263865** | **deepsikhamukherjee103@gmail.com** |
| **9** | **Soumima Chattoraj (SMC)** | **Guest Lecturer** | **7044108774** | **soumimachattoraj007@gmail.com** |

**Details about Non-teaching staff**

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| --- | --- | --- | --- | --- |
| **Sl No** | **Name of the Staff** | **Designation** | **Contact No** | **Email Id** |
| **1** | **Mithu Hazra** | **Lab Attendant** | **9609252150** |  |
| **2** | **Rajesh Nabik** | **Lab Attendant (Casual)** | **7872114179** |  |

**Module wise Syllabus distribution of B.Sc. 4th SEM ZOOLOGY GE (January to June, 2020)**

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| Course Code: ZOOL-H-GE-T-04  | Course Title: Comparative Anatomy, Developmental Biology of Vertebrates and Ecology |
| **Theory (Total 60 Lectures)** |
| Unit | Name of teacher | Topic | Sub-Topics  | No of Classes |
| 1 | BM | **Integumentary System** | Structure, function and derivatives of integument in mammals. | 4 |
| 2 | BM | **Skeletal System** | Jaw suspensions | 4 |
| 3 | DKC | **Digestive System** | Teeth | 4 |
| 4 | DKC | **Circulatory System** | Comparative account of heart and aortic arches. | 4 |
| 5 | SCC | **Urinogenital System** | Succession of kidney, Types of mammalian uteri. | 4 |
| 6 | SCC | **Nervous System** | Cranial nerves in mammals. | 4 |
| 7 | DM | **Early Embryonic Development** | Spermatogenesis, Oogenesis; Types of eggs, Egg membranes; Fertilization (External and Internal): Planes and patterns of cleavage; Embryonic induction and organizers. | 6 |
| 8 | BM | **Late Embryonic Development** | Fate of Germ Layers; Extra-embryonic membranes in birds. | 4 |
| 9 | BM | **Post Embryonic Development** | Regeneration:Modes of regeneration, epimorphosis, morphallaxis and compensatory regeneration (with one example each). | 3 |
| 10 | DM | **Introduction to Ecology** | Autecology and synecology, Levelsoforganization. | 3 |
| 11 | SCC | **Population and Community** | Geometric,exponential and logistic growth,equation,Gause’s Principle with laboratory and field examples.Community characteristics :species diversity, abundance, dominance, richness.Vertical stratification. Ecological succession with one example. | 7 |
| 12 | DKC | **Ecosystem** | Foodchain: Detritus and grazing food chains, Linear and Y-shaped foodchains, Foodweb, Energy flow through the ecosystem, Ecological pyramids. | 7 |
| 13 | DM | **Applied Ecology** | Wildlife Conservation (in-situ and ex-situ conservation).Management strategies for tiger conservation; Wildlife protection act(1972) | 6 |
| **Practical (Total 30 Lectures)** |
| 1 | SR |  | Study of placoid, cycloid and ctenoid scales through permanent slides/photographs | 4 |
| 2 | SC |  | Study of disarticulated skeleton of Toad/Pigeon/Guineapig. | 4 |
| 3 | SR |  | Demonstration of Carapace and plastron of turtle OR Identification of mammalian skulls: One herbivorous (Guineapig) and one carnivorous (Dog) animal | 4 |
| 4 | SC |  | Dissection of Tilapia/carp: Circulatory system/urinogenital system; brain/pituitary. | 4 |
| 5 | SR |  | Study of whole mounts of developmental stages of chick through permanent slides: 24, 48, 72, and 96 hours of incubation. | 4 |
| 6 | SC |  | Study of an aquatic ecosystem: Phytoplankton and zooplankton, determination of pH, and Dissolved Oxygen content (Winkler’s method) and free CO2. | 6 |
| 7 | SR |  | Report on a one-day visit to Sanctuary/Zoo/Sericulture station/Fishery/apiculture station/pond ecosystem/agroecosystem. | 4 |