

Course Code	Course Title	C	H	I	E	T
17U6ZMP3	Major Practical 3	6	3	25	75	100

### **Major Practical 3 (Genetics, Biodiversity & Conservation Biology, Animal Physiology & Animal Behavior, Forensic Science)**

#### **Genetics**

1. Mounting of polytene chromosomes
2. Observation of chromosomal variation from permanent slides or pictures provided

**Spotters:** Twins, Replication model, Mendelian traits in Man, Sickle cell anaemia, Klinefelter's, Turner and Down's Syndromes

#### **Biodiversity & Conservation Biology**

1. Estimation of salinity in water sample
2. Estimation of O<sub>2</sub> and CO<sub>2</sub> in water sample Identification of Planktons
3. Visit of pond / Forest ecosystem — report of fauna.
4. Usage of Sacchis' Disc, Hygrometer, pH meter, rain gauge etc.

**Spotters:** Ecological pyramids, Light trap, Pitfall trap, Alpha, Beta and Gamma diversity, Red Data Book, National Parks.

#### **Animal Physiology & Animal behaviour**

1. Estimation of oxygen consumption of fish with reference to body weight.
2. Qualitative analysis of nitrogenous waste products in fish tank water, bird excreta and mammalian urine.

**Spotters:** Sphygmomanometer, Kymograph, ECG

#### **Forensic Science**

1. Observation of Finger prints in human population
2. Visit to forensic laboratory

**Spotters:** DNA profiling, Insects in Forensic science, Cyber crime