

Syllabus **for** **Biology and Serology**

1) Biology

- Scope and importance of Forensic Biology in Crime.
- Nature of Hair, Fibers and fabric; Information obtained from them; their characteristics to determine their species, sex, and origin.
- Importance of vegetable material like wood, stems, leaves, flowers and pollen grains.
- Diatoms; their importance, structure and identification.
- Skeletal remains - identification.
- Importance of Odontology and Photographic Superimposition.
- Importance of Wild Life Species and their means of identification.

2) Serology

- Role of Serology in criminal investigation.
- Blood, Semen, Saliva and other body fluids.
- Characteristics of blood, semen and other body fluids; their identification using classical and modern instrumental methods of analysis.
- Antigen, Antibodies, ABO blood grouping; and other sub types; for blood and other body fluids identification.
- Importance of Polymorphic enzymes and proteins.
- DNA Fingerprinting technique; its importance in criminal investigations.
- Availability of expertise and circumstances for choosing DNA profiling.
- Procedure for collection and preservation of biological samples for DNA analysis.