

School of Studies in Forensic Science

Pt. Ravishankar Shukla University

Raipur (C.G.)

**Syllabus For Entrance Examination in M.Sc.
Forensic Science**

2025-26

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Unit -I

Chhattisgarh -Demography, Culture, Geography and Tribes.

Unit -II

Physical Properties- Temperature, Weight and Mass, Density, Refractive Index, Diffraction, Polarization.

Laws of Motion- Motion in a Uniform Field, Centripetal Acceleration, Motion under a Central Force.

Basic Optics- Light as an Electromagnetic wave, Interference of Light, Principle of Superposition, Two-Slit Interference, Michelson Interferometer and its Application.

Microscopy- Numerical Aperture and Resolving Power of Microscopic Systems, How the Microscope Forms Images; Simple, Compound, Stereoscopic, Polarizing, Comparison, Fluorescence and Electron Microscopes.

Photochemistry- Interaction of Radiation with Matter, Difference between Thermal and Photochemical Processes, Laws of Photochemistry, Grothus-Draper Law, Stark-Einstein Law. Jablonski Diagram, Description of Fluorescence, Phosphorescence, Non-radiative Processes, Quantum Yield, Photosensitized Reactions, Energy Transfer Processes, etc.

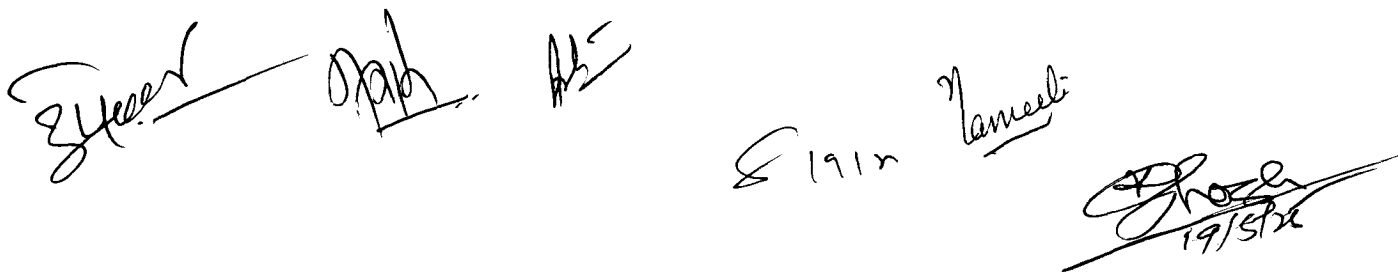
Organic Chemistry- Structure and Bonding: Hybridization, Bond Length and Bond Angles, Bond Energy, Localized and Delocalized Chemical Bond. Structure and Characteristics of Alkane, Alkene, Cycloalkane, Alcohol, Phenol, Ethers, Aldehyde, Ketone, Carboxylic Acid, etc.

Inorganic Chemistry- Trends in Periodic Table and Applications in Predicting and Explaining the Physical and Chemical Behaviors. Definitions of Acid and Base, Classification of Acids and Bases, Essential and Trace Elements in Biological Process, Metallo Porphyrins with Special Reference to Haemoglobin, Types of Magnetic Behaviors, Method of Determining Magnetic Susceptibility, Spin only Formula, L-S Coupling.

Unit -III

Forensic Science- Definition, History, Development and Scope of Forensic Science in India. Basic Principles of Forensic Science and its Significance, Organization, and Functioning of State and Central Forensic Science Laboratories.

Physical evidence- Definition, Types, Class, and Individual Characteristics; Different Searching Methods for Locating Physical Evidence at the Scene of Crime; Chain of Custody.

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Unit -IV

Forensic Biology- Composition and Examination of biological fluids like - Blood and Bloodstains, Seminal stains, Saliva, Urine, Pus, Feces, etc.; Hair, Fiber, Pollen grains, and Diatoms.

Scene of crime - Types, Protection of Scene of Crime, Crime Scene Documentation- Note Taking, Videography, Photography and, Sketching Methods, Importance of Photography, General Guidelines, Admissibility in Court, Various forms such as Videography.

Unit- V

Fingerprints- History, Types of Fingerprints, Types of Finger Print Patterns, Different Classifications, Systems Location and Preservation of Fingerprints, Development of Latent Prints by Physical, and Chemical Methods.

Questioned Documents- Definition, Types of Documents, Types of Writing Instruments their Characteristics and Examination, Paper and its Examination, Basic Tools needed for Forensic Document Examination.

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19.5.25 *8/9/17*
7/10/21 *7/10/21*