

**SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN(LAB), T&S GRADE - D
(INTERNAL)**

Internal Circular No. CRP/PER/R/2026/309, Dt. 30.05.2026

PART-I (Subject)

1. UNIT – I : GENERAL LABORATORY PRACTICE

Laboratory Services • Laboratory Infrastructure • Laboratory Equipment and Instruments • Reagents and Materials • Specimen Collection, Storage and Transport • Water, Chemicals, Solutions and Reagents • Units of Measurement • Colorimetry • Electrochemistry • Laboratory Accidents and First Aid • Bio-Medical Waste Management • Laboratory Automation • Ethical Considerations • Computers in Laboratory • Quality Assurance • Standard Operating Procedures (SOPs) • Internal and External Quality Assessment

2. UNIT – II : CLINICAL BIOCHEMISTRY

Carbohydrates • Lipids and Lipoproteins • Proteins • Nucleic Acids • Non-Protein Nitrogen Substances • Digestion and Absorption • Vitamins and Minerals • Acids, Bases and Salts • Plasma Proteins • Bilirubin • Urine Analysis • Renal Function Tests • Body Fluids • Glucose Tolerance Test • Blood Coagulation • Enzymes and Isoenzymes • Hormones • Inorganic Ions • Blood Gas Analysis • Liver Function Tests • Gastric Analysis • Thyroid Function Tests • Electrophoresis

3. UNIT – III : CLINICAL MICROBIOLOGY

General Microbiology • Bacteriology • Mycology • Parasitology • Virology • Culture Methods • Sterilization and Disinfection • Biomedical Waste Management • Automation in Microbial Identification • Antimicrobial Sensitivity Tests • Serological Tests

4. UNIT – IV : CLINICAL PATHOLOGY

Clinical Pathology • Urine Examination • Body Fluids Examination • Semen Analysis • Haematology • Haemoglobin Estimation • Red Blood Cells • White Blood Cells • Platelets • ESR • Coagulation Tests • Haemoparasites • Bone Marrow • Histopathology • Cytology • General Pathology • Immunohaematology • Blood Banking • Blood Grouping • Cross Matching • Coombs Test

5. UNIT – V : LABORATORY QUALITY MANAGEMENT

Quality Control • Quality Assurance • Standard Operating Procedures • Laboratory Safety • Biomedical Waste Disposal • Laboratory Records and Documentation • Equipment Maintenance • Internal and External Quality Assessment

PART-II (General Studies)

1. General Knowledge
2. General English
3. Quantitative Aptitude & Numerical Ability
4. Test of Reasoning
5. Computer Basics