

Program	Institute
<b>All M.Sc. Medical Laboratory Technology (MLT) Programs</b>	<b>Manipal College of Health Professions (MCHP), Manipal</b>

### Department Test (DT) 2022 Details

- Test Duration: 60 minutes
- Total Questions: 60 MCQs
  - Pathology (25 Qs), Microbiology (20 Qs), Biochemistry (15 Qs)
- Max Marks: 60
- Marking Scheme: **No Negative marking**
- Schedule Mode: Refer [www.manipal.edu/dt](http://www.manipal.edu/dt) for updates

### PATHOLOGY

Transfusion Medicine: ABO blood group system, The Rh blood grouping system, Direct antihuman globulin test, Indirect antihuman globulin test, Compatibility testing. Blood component preparation and their uses, Hemolytic diseases of newborn, transfusion reactions and Transfusion transmitted diseases; Histopathology and Cytology: Histopathological fixatives, Decalcification, Tissue processing, Section cutting, mounting medium, Hematoxylin and Eosin staining and special staining techniques. Fixatives and fixation techniques in cytology. Preparation of fluids for microscopic examination. PAP staining technique. Stains used for hormonal evaluation, identification of sex chromatin, Methods of chromosome analysis, chromosomal defects; Hematology and Clinical Pathology: Hematopoiesis, Principles of hemoglobin, blood counts and requirements, Blood smear preparation and reporting, Principle of Romanowsky stains & types, Automation, Hemostasis, Coagulation work, Urine and other body fluid analysis. Classification of anemia, leukemia and their diagnosis.

### MICROBIOLOGY

General Microbiology: Sterilization and Disinfection, Culture media and methods, Staining, Nosocomial infections, Bacterial genetics; Immunology: Immunity (types and mechanism), antigen, antibody, ag-ab reactions, Complement, Hypersensitivity, Autoimmunity; Systemic bacteriology: Staphylococcus, Streptococcus, Bacillus, Corynebacterium, Anaerobic bacteriology, Enterobacteriaceae, Vibrio, Pseudomonas, Hemophilus, Brucella, Bordetella, Mycobacterium, Spirochetes, Mycoplasma, Actinomycetes, Rickettsiaceae, Chlamydiae; Virology: General properties, bacteriophages, Herpes, HIV, Myxovirus, Rhabdo, Hepatitis, Oncogenic viruses, Arbovirus; Parasitology and Entomology: Vector borne diseases, Protozoans, Helminths, Larva migrants; Mycology: Mycoses (Superficial/Deep/Oppportunistic) and Mycotoxins.

### BIOCHEMISTRY

Solutions & Enzymes: Preparation of different types of solutions: Percent solution, molar solution, normal solution, titrations, buffers; Enzymes: Factors affecting enzyme activity, Diagnostic enzymes in clinical medicine, Liver enzymes: AST, ALT, ALP, GGT, Cardiac enzymes, pancreatic enzymes, Bone enzymes, G6 PD, cholinesterase, Isoenzymes; Carbohydrates & Lipids: Glucose: regulation of blood glucose, diabetes mellitus, hypoglycemia, gestational diabetes mellitus, methods for estimation of blood glucose, glycated Hb, and glucose tolerance test; Lipid: Estimation and cl. significance, Triglycerides, cholesterol; Lipoproteins: classification, structure, function, Chylomicrons, VLDL, LDL, HDL Hyper-lipoproteinemia atherosclerosis Hypolipoproteinemia, Lipid profile; Renal function test, Liver Function Test & Endocrinology (RFT): Indications and classification of RFT, Renal disorders, Glomerular Function tests, Tubular function tests, Serum Urea, Creatinine and Uric acid (Na<sup>+</sup>, K<sup>+</sup>); Liver function test: Basic Processes in liver diseases, Test related to bile pigment metabolism, Causes and Laboratory findings in different types of jaundice; Endocrinology: Pituitary hormones Anterior hormones, Posterior pituitary hormones, Thyroid hormones, Parathyroid hormones, Adrenal hormones, Pancreatic hormones, Gonadal hormones

♣ Best of Luck ♣

Updated: 10.05 AM, Feb 4, 2022