

TABLE OF SPECIFICATION FOR NUMS ADMISSION TEST FOR FSC MLT STUDENTS

Course Title: **Haematology & Blood Banking**

Topic / Area	MCQS
Composition and function of blood Collection of blood Anticoagulants	1 x MCQ
White blood cells Total Leucocytes count (T.L.C) / Leucocytosis / Leucopenia Differential Leucocyte Count (DLC)	2 x MCQs
Platelets Count / Thrombocytosis / Thrombocytopenia	1 x MCQs
Hematopoiesis Development of Red Blood Cells Normal values of RBCs Polycythemia Abnormalities of RBCs Haemoglobin Absolute Values	2 x MCQs
Anaemia / Classification of Anaemia Laboratory Diagnosis of Anaemia	2 x MCQs
Erythrocytes Sedimentation Rate (ESR)/Packed Cell Volume (PCV) or Haematocrit	1 x MCQs
Preparation of Blood Smears & Staining	1 x MCQs
Blood coagulation Factors Blood Clotting Time Prothrombin Time (PT) Activated Partial Thromboplastin Time (APTT) Bleeding Time	1 x MCQs
Bone Marrow Acute Myeloblastic Leukaemia (AML/ALL) Chronic leukaemia (CML/CLL)	1 x MCQs
Blood Banking Selection of Blood Donor Blood grouping techniques Coombs test of Anti globulin test Major Cross Match Blood transfusion Reaction	3 X MCQs

Course Title: Microbiology & Serology

Topic / Area	MCQS
Bacterial Cell structure Classification of Bacteria Gram-Positive Cocci Gram-Negative Cocci Gram-Positive Bacilli Gram-Negative Bacilli Spirochetes and Serology of Syphilis	2 x MCQs
Mycobacteria	1 x MCQs
Methods of sterilization	1 x MCQs
Collection of samples Microscope	1 x MCQs
Procedures for examining clinical Sepcimens	
Staining procedures used in bacteriology	
Preparation of culture Media	1 x MCQs
Biochemical test for Identifying Bacteria	1 x MCQs
Testing the sensitivity of anti-microbials	
Basic virology Common viral diseases (measles, Rabies, Polio, & Hepatitis)	1 x MCQs
Amoebiasis Giardia lamblia Leishmania Plasmodium Protozoa <ul style="list-style-type: none"> • Entamoeba histolytica • Trichomonas • Leishmania 	2 x MCQs
Sporozoa <ul style="list-style-type: none"> • Plasmodium vivax • Plasmodium ovale • Plasmodium malariae • Plasmodium falciparum 	
Helminthes <ul style="list-style-type: none"> • Ascaris lumbricoides • Ancylostoma duodenale • Enterobius vermicularis 	
Detection of Occult blood in faeces	

Course Title: Chemical Pathology & Clinical Pathology

Topic / Area	MCQS
Units of Measurement	1 x MCQ
Basic Laboratory equipment <ul style="list-style-type: none"> • Spectrophotometers • Flame Photometer/ Electrolytes analyzer • Water bath • Laboratory Centrifuge • Balance • PH Meter • Mixers • Incubators 	3 x MCQs
Urine examination	2 x MCQs
Examination of faeces	1 x MCQs
Examination of cerebrospinal fluid (CSF)	1 x MCQs
Plasma glucose estimation	1 x MCQs
Routine liver function tests <ul style="list-style-type: none"> • Serum bilirubin • Serum alanine aminotransferase (ALT) • Serum alanine phosphatase (ALP) • Serum total protein & albumin 	2 x MCQs
Renal function tests <ul style="list-style-type: none"> • Serum creatinine • Creatinine clearance • Urea • Uric Acid 	1 x MCQs
Plasma electrolytes <ul style="list-style-type: none"> • Plasma sodium • Plasma potassium • Plasma bicarbonate • Plasma calcium 	2 x MCQs
Cardiac Markers <ul style="list-style-type: none"> • Cardiac enzymes • Cardiac troponins (c Tn) 	1 x MCQs

Course Title: Elective anatomy & Micro Techniques

Topic / Area	MCQS
Introduction <ul style="list-style-type: none"> • Anatomy • Histology • Histopathology • Micro technique 	2 x MCQs
Tissues <ul style="list-style-type: none"> • Epithelial • Muscle • Nervous • Connective 	2 x MCQs
Basic knowledge of human body system <ul style="list-style-type: none"> • Cardio vascular system • Digestive system • Nervous system • Respiratory system • Urinary system • Reproductive system • Endocrine system 	2 x MCQs
Micro technique (Basic Knowledge) <ul style="list-style-type: none"> • Histopathology samples • Biopsy • Cytology/Cytopathology • Fixation of tissue • Tissue processing • Embedding of tissue 	2 x MCQs
<ul style="list-style-type: none"> • Tissue sectioning • Parts of microtome • Frozen section • Cryostat • Classification of stains • Hematoxylin and Eosin Staining 	2 x MCQs