

**BOWEN UNIVERSITY, IWO**  
**(Of the Nigerian Baptist Convention)**

**COLLEGE OF HEALTH SCIENCES**  
**MEDICAL LABORATORY SCIENCE PROGRAMME**  
**2023/2024 FIRST SEMESTER EXAMINATION**

**MLS 201: INTRODUCTION TO MEDICAL LABORATORY SCIENCE I**

**DATE: 29TH JANUARY 2023 TIME ALLOWED: 2HOURS**

**INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER THREE**

**START EACH QUESTION ON A NEW PAGE**

1. (a) Write short notes on any four (4) specialties of Medical Laboratory Science. Your answer should include their role and types of investigations that they carry out (12 marks)
- (b) Describe four (4) functions of a Medical Laboratory Scientist in the healthcare system. (8 marks)
- (c) List five (5) applications of laboratory animals in Biomedical Science research (5marks)
  
2. (a) Define the term Microscopy (1 mark)
- (b) Describe three (3) applications of Microscopy in Medical Laboratory Science (6 marks)
- (c) Describe five (5) methods of maintaining and caring for a Microscope (10 marks)
- (d) Highlight four (4) differences between Light Microscopes and Electron Microscopes (8 marks)
  
3. (a) Define the term Laboratory Hazard (2 marks)
- (b) List five (5) examples of Laboratory hazards and one mitigation method associated with each (10 marks)
- (b) List five (5) biohazard signs that are used on doors/containers in the Laboratory (5marks)
- (c) List eight (8) safety precautions in a Clinical laboratory (8 marks)

4. (a) With the aid of an arrow diagram, classify sterilization techniques (5 marks)
- (b) Describe the mechanical method of sterilization and state two of its clinical applications (5 marks)
- (c) List five (5) chemicals that can be used to sterilize work surfaces in the Medical Laboratory (5 marks)
- (d) List five (5) precautions to be taken during pre-analytical stage of laboratory analysis (5 marks)
- (e) List five (5) factors that determine the quality of laboratory results (5 marks)
5. (a) List ten (10) examples of clinical samples that are analysed in the laboratory (5 marks)
- (b) List ten (10) examples of glassware that are used in the laboratory. (5marks)
- (c) List five (5) patients' details that should be included in a Medical Laboratory requisition form (5 marks)
- (d) Describe the three (3) major steps involved in wastes disposal in a Medical Laboratory. (10 marks)