



W1-2-60-1-6

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**  
**University Examinations 2024/2025**

**EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL  
PARASITOLOGY & ENTOMOLOGY**

**SZL 3123: LABORATORY METHODS IN PARASITOLOGY**

**DATE: DECEMBER, 2024**

**TIME: 3 HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS**

1. Define laboratory practices. [3 marks]
  - B. Using examples, define various stages of specimen processing in a research laboratory. [12 marks]
  - C. Briefly explain any five elements of laboratory quality assurance. [10 marks]
2. Discuss the Kato Katz technique, stating its merits and demerits. [25 marks]
3. State the basic principles of histopathology and histochemistry. [10 marks]
  - B. Discuss in details the procedure for staining tissues sections for identification of parasites. [15 marks]
4. Describe the different applications of molecular techniques in parasitological and entomological studies. [15 marks]
  - B. Briefly describe the polymerase chain reaction technique. [10 marks]
5. Discuss the life cycle of a mosquito. [10 marks]
  - B. Discuss the following cycles of Aedes mosquito. [15 marks]
6. Animal experimentation in biomedical research is essential for a better understanding of various biological processes. Discuss giving examples. [15 marks]
  - B. Discuss five requirements for experimental animal housing. [10 marks]