



**MAASAI MARA UNIVERSITY**  
**REGULAR UNIVERSITY EXAMINATIONS**  
**2023/2024 ACADEMIC YEAR**  
**FOURTH YEAR SECOND SEMESTER**

**EXAMINATIONS**  
**FOR**  
**BACHELOR OF SCIENCE IN MICROBIOLOGY**

**COURSE CODE: MIC 4207**

**COURSE TITLE : QUALITY ASSURANCE METHODS**

**DATE: 15TH APRIL, 2024**

**TIME: 1100-1300HRS**

---

**Instructions**

**A. Answer ALL questions in section A and any TWO in section B**

**B. Illustrate your answers with diagrams and give examples where appropriate.**

**SECTION A: SHORT ANSWER QUESTIONS (30MARKS)**

1. What is quality assurance in microbiology? **(3 marks)**
2. Outline the checks that must be performed in freshly prepared culture media before use in the laboratory **(3 marks)**
3. State three elements of an efficient quality control programme in a microbiology laboratory. **(3 marks)**
4. Discuss three best practices in quality control. **(3 marks)**
5. Define quality control in a research lab **(3marks)**
6. State three possible quality control challenges that might be experienced in culture media quality in laboratory. **(3 marks)**
7. Briefly discuss autoclaving as a culture media sterilization method. **(3 marks)**
8. Define the following terms: **(3 marks)**
  - a. Biocontainment
  - b. Decontamination
9. As a researcher working in microbial culture laboratory, state at least six safe clinical laboratory practices that **MUST** be observed. **(3 marks)**
10. Outline the quality control measures followed during media preparation?

**SECTION B: ESSAY QUESTIONS(Answer 2 Questions)(40 Marks)**

11. Discuss the essential records that must be maintained in a microbiology laboratory. **(20 marks)**
12. Discuss the three phases involved in laboratory quality assurance. **(20 marks)**
13. Discuss biosafety and biosecurity in a level III mycology laboratory **(20 marks)**
14. Discuss the steps involved in verifying tests in a medical laboratory **(20 marks)**

**//END**