



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya

Tel: +254(0) 799 529 958, +254(0) 799 529 959, + 254 (0) 712 524 293,

Website: info@must.ac.ke Email: info@must.ac.ke

University Examinations 2024/2025

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL LABORATORY SCIENCES

HML 3412: LABORATORY MANAGEMENT ETHICS AND LAW

DATE: JANUARY 2024

TIME: 3 HOURS

INSTRUCTIONS:

Answer *All* questions

Ensure that all your answers are properly numbered

Part I multiple Choice Questions (MCQ): Write the correct answer on the space provided in the answer booklet. Each MCQ is one mark

Part II: Short Answer Questions – Answer questions following each other on the answer booklet

Part III: Long Answer Questions – Answer each question on the answer booklet

SECTION A: MULTIPLE CHOICE QUESTIONS (20 marks)

1. In the evolving technological trends, what is the importance of deploying mobile laboratories and point of care testing (POCT) in Kenya's health system?
 - A) Eliminating the need for advanced diagnostic equipment
 - B) Centralizing all Laboratory services in Urban centers
 - C) Increasing accessibility to laboratory services in remote and underserved areas
 - D) Reducing the need for Laboratory staff

2. What is the primary goal of Medical laboratory accreditation?
 - A) To reduce the cost of laboratory tests
 - B) To standardize laboratory practices and ensure quality of services
 - C) To increase the number of laboratories in the country
 - D) To provide training programs for laboratory personnel
3. Which of the following does not apply in a contract of a laboratory employee?
 - A) Legal subject matter
 - B) Agreement
 - C) Patient
 - D) Contractual capacity
4. Which organization is responsible for accrediting medical laboratories in Kenya to ensure compliance with international standards?
 - A) Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB)
 - B) Ministry of Health (Mold)
 - C) Kenya Accreditation Service (KENAS)
 - D) National Public Health Laboratories (NPHL)
5. Which of the following are skills of Laboratory management?
 - A) Diagnostic skills, Technical skills. Human skills, Conceptual skills
 - B) Conceptual skills, Teaching skills, Diagnostic skills, Technical skills
 - C) Human skills, Conceptual skills. Treatment skills, Diagnostic skills
 - D) Diagnostic skills. Radiology skills, Human skills. Technical skills
6. A medical laboratory Quality control programme involves the following EXCEPT?
 - A) Standard Operating Procedures
 - B) Safety measures
 - C) Calibration
 - D) Medical scheme

7. Which document management practice is essential for maintaining the integrity and traceability of laboratory test results in Kenya?
- A) Manual filing in physical storage cabinets
 - B) Electronic data backup and retrieval systems
 - C) Verbal communication of results
 - D) Using temporary paper logs for documentation
8. Which practice is crucial for ensuring the longevity of medical laboratory equipment?
- A) Regularly updating software without hardware checks
 - B) Performing scheduled preventive maintenance and calibration
 - C) Ignoring manufacturer's maintenance guidelines
 - D) Using equipment until it completely fails
9. The following should be checked upon receipt of Laboratory reagents and kits
- A) Expiry dates, Breakage, Potential, Lot number
 - B) Lot number, Contaminations Expiry dates, Supplier
 - C) Contamination. Expiry date, Laboratory fee, Breakage
 - D) Quantity, Lot number, Breakage, Expiry dates
10. Which is a fundamental measure to ensure staff safety in Laboratories?
- A) Allowing unrestricted access to the laboratory
 - B) Providing personal protective equipment (PPE) and ensuring its proper use
 - C) Using outdated safety' protocols
 - D) Not conducting regular safety training sessions
- 11 . What is the primary purpose of conducting laboratory audits in Kenya?
- A) To reduce the cost of tests
 - B) To assess the quality and compliance of operations with established standards
 - C) To increase the number of personnel
 - D) To promote privatization of laboratory services

12. What is the ethical responsibility of Medical laboratory professionals?
- A) Maximizing profits from laboratory services
 - B) Ensuring accurate, reliable, and confidential handling of patient test results
 - C) Increasing the number of tests conducted daily
 - D) Reducing the cost of laboratory equipment
13. Which of the following is NOT a Sample pre-collection activity?
- A) Type of sample to be collected
 - B) Drug prescription
 - C) Timing of sample collection
 - D) Patient preparation
14. Which of the following should be included in labelling a specimen in the Lab?
- A) Date and time, Lab number, Specimen type, Patient name
 - B) Initials of collector, Date and time, Height, Patient name
 - C) Patient name, unique number, Place of collection, Quantity
 - D) Lab number, Patient name, Colour of specimen, Date and time
15. Which of the following is NOT a type of store.
- A) Dispensing store
 - B) Compressive store
 - C) Decentralized store
 - D) Centralized store
16. How can Laboratory Information Management Systems (LIMS) improve specimen reporting in Kenya?
- A) By automating specimen collection
 - B) By providing real-time data and reducing manual reporting errors
 - C) By eliminating the need for laboratory technicians
 - D) By increasing the cost of laboratory operations

17. Which standard is specifically designed for the accreditation of medical laboratories in Kenya?
- A) ISO 9001
 - B) ISO 17025
 - C) ISO 45002
 - D) ISO 15189
18. Which of the following is NOT a special Laboratory purchase?
- A) Radioactive materials
 - B) Ethanol
 - C) Sulphuric acid
 - D) Gram stain
19. Which of the following systems is NOT an example of unintentional Tort?
- A) Nonfeasance
 - B) Misfeasance
 - C) Nilfeasance
 - D) Malfeasance
20. Which of the following is not an ethical principle.
- A) Justice
 - B) Beneficence
 - C) Profession
 - D) Respect

SECTION B: SHORT ANSWER ALL QUESTIONS (40 MARKS)

1. a) Briefly explain the Basic triple packaging (4mks)
b) Mention four reasons for rejecting a Sample. (4mks)
2. Discuss four roles of Standard Operating Procedures (SOPs) in the handling and processing of medical laboratory specimens. (8mks)

3. a) Give 4 examples of ethical violations. (4mks)
b) Differentiate between Quality control and Quality assurance. (4mks)
4. a) Briefly discuss four roles of a health lawyer (4mks)
b) State four importance of laboratory internal audit (4mks)
5. a) Explain the four levels considered when replenishing stores to ensure steady and efficient functioning of the Laboratory. (8mks)

SECTION C: LONG ANSWER TWO QUESTIONS (40 MARKS)

1. Mention different practices in a Medical Laboratory that contribute to preventing contamination and ensuring environmental and public safety (20mks)
2. a) State the importance of the ASCLS Code of Ethics (8mks)
b) Briefly discuss six necessary features of a Medical laboratory physical design (12mks)
3. Discuss the key principles and parts of a Quality Assurance (QA) program in a medical laboratory? (20mks)