



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF PURE AND APPLIED HEALTH SCIENCES

DEPARTMENT OF MEDICAL LABORATORIES

ORDINARY UNIVERSITY EXAMINATION

2023/2024 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR

OF SCIENCE IN MEDICAL LABORATORY SCIENCE

MML 303 – MEDICAL RESEARCH METHODS

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A – (30 MARKS) – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Explain five difference between quantitative studies and qualitative studies. (5 marks)
- b) Highlight five (5) threats to internal validity. (5 marks)
- c) Highlight five (5) purpose of literature review. (5 marks)
- d) Highlight five (5) types of qualitative study. (5 marks)
- e) Describe five ethical principles in research. (5 marks)
- f) Describe five (5) importance of research objectives. (5 marks)

SECTION B (40 MARKS) – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

Student J is set to conduct a study on knowledge, attitude and practice on cervical cancer screening on women aged 21 – 49 years at Murang’a county hospital.

- i. Identify two independent variables in the above study. (2 marks)
- ii. Outline four sources of research problems where student J derives the topic from. (2 marks)
- iii. State five (5) reasons why student J should conduct a pre-test study before the actual study.
- iv. State three (3) main stages of data collection process that student J will apply. (6 marks)
- v. State three (3) ways in which student J can communicate the study findings. (3 marks)

QUESTION THREE (20 MARKS)

Quantitative research design is classified into experimental and non-experimental design and both are concerned with objectivity, tight controls over the research situation and the ability to generalize findings’

- i. Explain three (3) characteristics of true experimental research designs. (6 marks)
- ii. State two differences between experimental design and quasi experimental design. (4 marks)
- iii. Explain five types of non – experimental research designs. (10 marks)

QUESTION FOUR (20 MARKS)

Discuss the research proposal development steps. (20 marks)