



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF PURE & APPLIED SCIENCES

DEPARTMENT OF PHYSICAL & BIOLOGICAL SCIENCES

UNIVERSITY POST GRADUATE EXAMINATION

2018/2019 ACADEMIC YEAR

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR MASTER OF
TECHNOLOGY IN ELECTRICAL & ELECTRONICS**

EET 600 - RESEARCH METHODOLOGY & SCIENTIFIC WRITING

DURATION: 3 HOURS

DATE: 15/4/2019

TIME: 9-11 A.M.

Instructions to candidates:

1. Answer ANY FOUR questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

QUESTION ONE (25 MARKS)

- (a) Explain strategies and benefits of maintaining confidentiality of research data.(8marks)
- (b) Explain the bioethics issues associated with the following:
 - (i) The Nuremberg doctors trial of 1946
 - (ii) The Tuskegee syphilis study
 - (iii) The thalidomide tragedy of 1950s (7marks)
- (c) Justify the importance of Material Transfer Agreement. (5marks)
- (d) Evaluate the ethical and regulatory issues of concern whenever human tissue is being shipped across borders for research purpose. (5marks)

QUESTION TWO (25 MARKS)

- (a) Discuss probability sampling techniques. (20 marks)
- (b) Explain the factors that influence sample representativeness. (5 marks)

QUESTION THREE (25 MARKS)

- (a) Review the components of a good scientific report. (5 marks)
- (b) Discuss the qualities of an effective literature review. (8 marks)
- (c) Discuss the pros and cons of secondary and primary data. (12 marks)

QUESTION FOUR (25 MARKS)

- (a) Discuss the characteristics of a well-planned research experiment. (10 marks)
- (b) Discuss the main steps in scientific experimentation. (15 marks)

QUESTION FIVE (25 MARKS)

- (a) Discuss the salient features of four referencing styles. (16 marks)
- (b) Discuss the methods of disseminating research results. (9 marks)