



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF SCIENCE  
AND TECHNOLOGY  
(MMUST)**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**FIRST YEAR, FIRST SEMESTER EXAMINATIONS**

**FOR THE DEGREE**

**OF**

**DOCTOR OF PHILOSOPHY IN HEALTH PROFESSIONS  
EDUCATION**

**COURSE CODE: DME 914**

**COURSE TITLE: ADVANCED RESEARCH METHODS**

**DATE: TUESDAY 19TH APRIL 2022      TIME: 8:00-10:00AM**

**INSTRUCTIONS TO CANDIDATES**

- i) Answer ALL questions in Section A and any TWO Questions in Section B
- ii) Write answers to questions clearly and logically

**TIME: 3 Hours**

**MMUST observes ZERO tolerance to examination cheating**

*This Paper Consists of 3 Printed Pages. Please Turn Over.*

**SECTION A: ANSWER ALL QUESTIONS**

**(40 Marks)**

**QUESTION ONE**

- i) Examine the methods of acquiring knowledge open to the researcher ( 8 Marks)
- ii) Outline the reasons for conducting literature review before writing a research Project (7 Marks)

**QUESTION TWO**

List any three data collection instruments and discuss each of them in terms of their weakness and strengths (15 Marks)

**QUESTION THREE**

The following terms are often used in statistical aspects of research: confoundment of effects of factors, statistical significance and precision of estimates. Concisely and precisely discuss each of the terms (10 Marks)

**SECTION B ANSWER ANY TWO QUESTIONS**

**(30 marks)**

**QUESTION FOUR**

The agroforestry project in Trans Nzoia county. Kenya has confirmed that a newly introduced fruit tree is preferred by households because when its leaves are chewed by their five year old children it causes an increase in body weight within one month period. Outline the steps a health scientist will follow to confirm the above observed impact on children body weight (15 Marks)

**QUESTION FIVE**

Discuss the following in the context of research project writing:

- (i) Conceptual framework and theoretical framework (8 Marks)
- (ii) The need for Descriptive and inferential statistical analyses results (7 Marks)

**QUESTION SIX**

Discuss in terms of application, internal, external and social Validity of the following research designs:

- (i) Cross sectional survey (7 Marks)
- (ii) Case Study (8 Marks)