



MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL MANAGEMENT AND CURRICULUM STUDIES

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

DOCTOR OF PHILOSOPHY IN EDUCATION

ECC 900: ADVANCED RESEARCH METHODS

DATE: 5/4/2022

TIME: 8.30-11.30 AM

INSTRUCTIONS:

- i. Switch off your mobile phone and any other gadgets while the examination is in progress.
- ii. Do not write anything on the question paper.
- iii. Answer question **ONE** and any other **THREE** questions

QUESTION ONE (COMPULSORY)

- a) Explain the importance of knowledge of research methods to education managers? (4 marks)
- b) Explain any **THREE** ethical practices that a researcher should uphold as he/she collects data in the field (3 marks)
- c) Use relevant examples to explain the **THREE** types of research philosophy. (3 marks)
- d) In a certain study, the researcher wanted to select a sample of 400 units from a total population of 6000 which had been stratified as shown in Table 1.0 below. Compute the number of units that should be randomly selected from each stratum. (5 marks)

Table 1.0: Population Distribution

Strata	Population (Ni)	Standard Deviation (Si)	Sample
A	1600	0.8	
B	800	1.0	
C	2000	2.0	
D	600	0.6	
E	1000	1.5	
Total	6000		

QUESTION TWO (15 MARKS)

- a) Explain the FIVE steps that are followed in defining a research problem (5 marks)
- b) Argue for the use of probability sampling technique in research with some clear explanations on any THREE probability sampling methods (6 marks)
- c) Explain any four strategies that one can use to determine the sample size for a study (4 marks)

QUESTION THREE (15 MARKS)

- a) Explain any FOUR guidelines that should be adhered to when designing a questionnaire (4 marks)
- b) Use examples to explain any four types of items that can be found in a questionnaire (8 marks)
- c) Explain the limitations of Focus Group Discussion as a method of data collection (3 marks)

QUESTION FOUR (15 MARKS)

- a) Explain the process of analyzing of data in a questionnaire by the use of a computer programme (9 marks)
- b) Use relevant examples to explain any THREE categories of true experimental research design (6 marks)

QUESTION FIVE (15 MARKS)

Juma conducted a study whose title was ‘The influence of school governance practices on the implementation of child friendly schools’ concept in Public Secondary schools in Makueni County’. The objectives of his study were:

- i. To establish the level of compliance with the Child Friendly Schools’ Concept in public secondary in Makueni County
- ii. To determine the influence of students’ participation in schools’ decision making on the implementation of Child Friendly Schools’ concept in public secondary schools in Makueni County
- iii. To establish the influence of Principals’ personal characteristics on the implementation of the Child Friendly Schools’ Concept in Public Secondary schools in Makueni County.
- iv. To establish the influence of in-service training of teachers’ on the implementation of Child Friendly Schools’ Concept in public secondary schools in Makueni County

Use the information to answer question (a) and (b)

- a) Determine the possible research question(s) and hypotheses (4 marks)
- b) Develop a conceptual framework for the study (5 marks)
- c) Explain any THREE categories of content analysis as a method of data analysis (6 marks)

