



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATION MANAGEMENT AND CURRICULUM STUDIES

FIRST YEAR FIRST SEMESTER EXAMINATION FOR DOCTOR OF PHILOSOPHY IN EDUCATION

EMP 901/ECC 900: ADVANCED RESEARCH METHODOLOGY

DATE: 6/5/2019

TIME: 8.30-11.30 AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

QUESTION ONE (20 MARKS)

- a) Explain the term theory as used in educational research (2 marks)
- b) Explain EACH of the following terms as applied in research:
 - i) Variable
 - ii) Validity
 - iii) Research Proposal (6 marks)
- c) Using a hypothetical case, explain **three** methods that can be used to select a sample when conducting survey research (6 marks)
- d) Using suitable examples, describe any **three** qualities of a good research title (6 marks)

QUESTION TWO (20 MARKS)

Assume that you have been invited to train young researchers on how to carry out Literature Review' in educational research. Using relevant examples, explain

- a) The procedure of carrying out literature review (10 marks)
- b) The challenges faced when carrying out literature review (10 marks)

QUESTION THREE (20 MARKS)

- a) Using suitable examples, distinguish between the following pairs of terms:
 - (i) independent and dependent variables
 - (ii) moderating and intervening variables (8 marks)
- b) Assuming that you are developing research instruments to carry out a research on 'students' academic performance', explain **six** types of intervening variables that would affect the internal validity of the research instruments according to Campbell (1963) (12 marks)

QUESTION FOUR (20 MARKS)

- a) Describe the steps used when using the Split-half method of determining the reliability of research instruments (10 marks)
- b) Explain five conditions that would necessitate the use of Chi-square as a method of data analysis (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain the importance of designing a good conceptual frame work (4 marks)
- b) Highlight the steps followed when designing a research conceptual framework (8 marks)
- c) By the use of a pictorial chart, explain the components of a conceptual framework in scientific research on "Family based factors influencing students' academic performance in Public Secondary Schools." (8 marks)