



MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF ENVIRONMENTAL STUDIES (ENVIRONMENTAL RESOURCE CONSERVATION) AND DEGREE IN ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT).

ESU 304: RESEARCH METHODS

Date: 29/11/2016

Time: 2 Hours

INSTRUCTIONS:

Answer **ALL** Questions in **section A** and **ANY TWO** questions in **section B**

SECTION A: 30 MARKS

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the meaning of the following terms
- | | |
|----------------------------|-----------|
| i) Research | (2 marks) |
| ii) Hypothesis | (2 marks) |
| iii) Questionnaire | (2 marks) |
| iv) Primary data | (2 marks) |
| v) Reliability | (2 marks) |
| vi) Descriptive statistics | (2 marks) |
- b) Using an appropriate environmental problem, formulate a research title and based on the title chosen, formulate a broad objective and two specific objectives.
- (10 marks)

- c) Based on question (b) above, explain the sampling procedure you will use and how you would determine the sample size for the research. (4 marks)
- d) Explain four ways of disseminating research findings (4 marks)

SECTION B: 40 MARKS

QUESTION TWO (20 MARKS)

Assuming that you have been appointed an officer in charge of research grant in a research institution, explain what you would consider as qualities of a good research report. (20 marks)

QUESTION THREE (20 MARKS)

- a) Identify three sources of bias in data collection and indicate ways of preventing the bias (6 marks)
- b) Explain major steps in research proposal development. (14 marks)

QUESTION FOUR

- a) Describe any two research designs commonly used in environmental research (8 marks)
- b) Describe how you would prepare and do an oral presentation of a scientific paper before an audience. (12 marks)

QUESTION FIVE

- a) Using suitable a example, explain how you would formulate an environmental research problem. (6 marks)
- b) Explain four reasons for carrying out literature review. (8 marks)
- c) Using examples, explain two types of citations systems commonly used in environmental research. (6 marks)