



MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE
IN ENVIRONMENTAL RESOURCE CONSERVATION & COMMUNITY
DEVELOPMENT**

ECD 211: INTRODUCTION TO GEO-SPATIAL TECHNIQUES

DATE: 2/12/2016

TIME: 2:00 – 4:00 PM

INSTRUCTIONS:

Answer Question One and Any Other Two Questions

SECTION A: 30 MARKS (COMPULSORY)

QUESTION ONE:

- (a) Discuss the Grid point soil sampling scheme used in GIS data collection (10 marks)
- (b) Describe the questions a GIS can answer. Give two examples in each (15 marks)
- (c) State the importance of precision agriculture (5 marks)

SECTION B: 40 MARKS

QUESTION TWO (20 MARKS)

- (a) Describe any five (5) aspects of Aerial Photo Interpretation. (10 marks)
- (b) Explain the standard procedures used in digital image processing. (10 marks)

QUESTION THREE (20 MARKS)

Discuss the process of remote sensing. (20 marks)

QUESTION FOUR:

(a) Describe the portions of electromagnetic spectrum useful in remote sensing (15 marks)

(b) State the five (5) ways in which data can be entered into GIS platform (5 marks)

QUESTION FIVE:

Outline the steps followed in precision farming. (20 marks)