University of choice

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)
SCHOOL OF AGRICULTURE, VETERINARY SCIENCES AND TECHNOLOGY (SAVET)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR

MAIN EXAMS
OF
BACHELOR OF (AGRICULTURE AND BIOTECHNOLOGY)

COURSE CODE: ASS 206

COURSE TITLE: SOIL SURVEY MORPHOLOGY AND CLASSIFICATION

DATE: 11TH APRIL 2024 **TIME: 2-4 PM**

INSTRUCTIONS TO CANDIDATES

This paper is divided into two sections, **A and B**. Answer ALL Questions in SECTION A and any Two in SECTION B

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

SECTION A: ANSWER ALL QUESTIONS (40 MARKS)

Q1. Differentiate between;

i) Endosaturation and Episaturation **(2mks)**

ii) Detailed and Reconnaissance soil survey **(2mks)**

iii) Humas and organic matter **(2mks)**

iv) Soil horizon and soil profile **(2mks)**

Q2. Describe four purposes of soil interpretations **(4mks)**

Q3. Describe four major soil texture classifications **(4mks)**

Q4. Outline four importance of Benchmark soil concept **(4mks)**

Q5. Explain two methods of soil classifications **(4mks)**

Q6. Explain four selected soil properties measured in the laboratory to support field data on soil morphology **(4mks)**

Q7. Enumerate four important information that must be in soil survey report **(4mks)**

Q8. Explain four dominant features constituting the B horizon **(4mks)**

Q9. List the symbols used in describing soil horizon and their respective meanings **(4mks)**

SECTION B

Q10. i) Discuss the procedure for detailed soil survey for mapping **(9mks)**

ii) Discuss characteristics of three soil orders found in Kenya **(6mks)**

Q11. i) Discuss the five soil forming factors influence on soil properties **(10mks)**

ii) Discuss two components of the Munsell color system **(4mks)**

Q12. Discuss the processes of soil formation **(15mks)**

Q13. i) Discuss three master horizons with outlining their distinguishing features **(9mks)**

ii) Discuss factors determining soil resistance to erosion **(6mks)**