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UNIVERSITY EXAMINATIONS 2021/2022

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN EDUCATION SCIENCE BIOLOGY/CHEMISTRY AND
BACHELOR OF SCIENCE IN EDUCATION SCIENCE BIOLOGY/MATHEMATICS
BACHELOR OF SCIENCE EDUCATION SCIENCE BIOLOGY/AGRICULTURE

SBT 3200: PLANT ECOLOGY

DATE: JANUARY 2022

TIME: 2 HOURS

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- a) Give the parameters you would assess quantitatively describe the structure of a plant community (4marks)
- b) Define leaf Area Index (LAS) and briefly explain the relationship to terrestrial primary productivity (5marks)
- c) Distinguish between podolization and gleization (5marks)
- d) Explain the water balance equation in terrestrial ecosystems and how it influences nutrients budget (4marks)
- e) Explain how the structure and properties of 2:1 clay's differ from 1:1 clay's (6marks)
- f) Describe the adaptations of mangroves to high salinity (6marks)

QUESTION TWO (20 MARKS)

Discuss the adaptive trends in afro alpine flora (20marks)

QUESTION THREE (20 MARKS)

Discuss types of East African wetlands and effects of seasonal flooding (20marks)

QUESTION FOUR (20 MARKS)

Discuss the factors that influence community structure of Savannes (20marks)