

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2019/2020**

**THIRD YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PLANT ECOLOGY AND ENVIRONMENTAL SCIENCE (PLEES)**

**SBT 2300: PLANT ECOLOGY**

**DATE: DECEMBER, 2019 TIME: 3 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

**QUESTION ONE: 30 MARKS**

a. Describe the plant life forms identified by Raunkier. (5 marks)

b. Outline the characteristics of biodiversity hot spots. (5 marks)

c. Describe a typical soil profile. (4 marks)

d. Explain the phenomenon of endemism. (4 marks)

e. Describe the process of primary plant succession. (4 marks)

f. Briefly discuss energy flow in terrestrial ecosystems. (4 marks)

g. Describe the unique characteristics of the mangrove forest ecosystem.

(4 marks)

**QUESTION TWO: 20 MARKS**

Discuss the influence of abiotic factors on plant growth and distribution.

**QUESTIONTHREE: 20 MARKS**

Discuss the grassland ecosystems in Kenya.

**QUESTION FOUR: 20 MARKS**

Discuss the phosphorus nutrient cycle.