
CHUKA



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**EXAMINATION FOR THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY
IN BOTANY**

BOTA 961: ADVANCED PLANT ECOLOGY

STREAMS: PhD (BOTA)

TIME: 3 HOURS

DAY/DATE: FRIDAY 20/12/2019

11.30 A.M. – 2.30 P.M.

INSTRUCTIONS:

- Answer any **THREE** questions.

QUESTION 1

Discuss the ecosystem services and the effects of climate change. (20 marks)

QUESTION 2

- (a) Discuss the strategies to restore agricultural diversity in time and space. (10 marks)
(b) Describe the relationship between agro ecology and sustainable agriculture. (10 marks)

QUESTION 3

- (a) Define carbon sequestration and its sources. (10 marks)
(b) Discuss the importance of carbon sequestration. (10 marks)

QUESTION 4

- (a) Discuss the interventions at a site level that focus on biodiversity restoration. (10 marks)
(b) Discuss the factors directing ecological succession of degraded forests. (10 marks)

QUESTION 5

Compare any two sampling methods for ecological assessment and monitoring. (20 marks)
