



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF MASTER OF SCIENCE IN BOTANY (PLANT
PHYSIOLOGY & BIOCHEMISTRY)

MAIN CAMPUS

SBT 808: PLANT MINERAL NUTRITION

Date: 26th April, 2016

Time: 8.30 - 11.30 am

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any THREE in SECTION B.



SBT 808: PLANT MINERAL NUTRITION

Answer **ALL** questions in section A and any **THREE** selected from section B

Section A: Compulsory (30 marks)

1. (a) Briefly explain the role of potassium and its deficiency symptoms in plants (10 marks)
- (b) Explain why the symptoms of a mineral deficiency depends on function and mobility of the element (5 marks)
2. (a) Discuss the soil physical characteristics that influence nutrient availability (10 marks)
- (b) Briefly explain how cation exchange capacity determines the availability of soil nutrients for plant uptake (5 marks)

Section B: Answer any TWO questions (20 marks)

3. Discuss any three processes that affects nutrient availability to plants (10 marks)
4. Discuss the influence of proper nutrition in relation to plant resistance to diseases and pests (10 marks)
5. Discuss Synergistic and Antagonistic nutrient element interactions (10 marks)
6. Discuss the uptake of nutrients by leaves and other aerial organs (10marks)
7. Describe the Short Distance transport of nutrient elements in plants (10 marks)