



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

**FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF MASTER OF SCIENCE**

MAIN CAMPUS

SBT 816: PLANT PRODUCTION ECOLOGY

Date: 4th December, 2015

Time: 11.00 - 2.00pm

INSTRUCTIONS:

- Answer ALL Questions in section A and any THREE Questions from section B.



SECTION A: 30 MARKS

1. Discuss the nature of energy flow mechanisms within the ecosystems and the significance of the energy flow diagram in ecological studies (15 marks)
2. Explain diversity of ways in which stable isotopes inform the present and future ecological changes during energy transfer in a variety of ecological systems and trophic levels (15 marks)

SECTION A: 30 MARKS

3. Discuss the emerging issues and new frontiers in the use of isotope in the energy transfer studies (10 marks)
4. Discuss the functional significance of RUBISCO molecule during photosynthesis (10 marks)
5. Discuss the role of temperature in primary productivity (10 marks)
6. How is primary productivity measured in the terrestrial and aquatic ecosystems? (10 marks)
7. Compare and contrast the limitations of the field experiments and laboratory experiments data collection (10 marks)