



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

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

MAIN CAMPUS

SBT 809: SECONDARY PLANT METABOLISM

Date: 10th December, 2015

Time: 8.30 - 11.30am

INSTRUCTIONS:

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



SECTION A: 30 MARKS

1. (a) Give a simplified summary of the pathways involved in secondary metabolite biosynthesis (10 marks)
(b) Explain the distribution and biological function of amines in plants (5 marks)
2. (a) Discuss the structure, occurrence and functions of flavonoids (10marks)
(b) Using examples discuss the structure of cyanogenic compounds produced by plants (5 marks)

SECTION B: 30 MARKS

3. Discuss the biosynthetic pathways of alkaloids (10 marks)
4. Discuss the biological functions of phenols in plants (10 marks)
5. Discuss the classification of terpenes (10 marks)
6. Discuss the mechanisms of action of phytoalexins in plant defenses against pathogens (10 marks)
7. Using examples, discuss the application of secondary plant metabolites as phytohormones (10 marks)