

# **MASENO UNIVERSITY UNIVERSITY EXAMINATIONS 2017/2018**

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN BOTANY (MICROBIOLOGY AND PLANT PATHOLOGY)

#### MAIN CAMPUS

SBT 801: METHODS AND TECHNIQUES IN BOTANY

Date: 14th February, 2018

Time: 12.00 - 3.00pm

#### **INSTRUCTIONS:**

• Answer ALL Questions in Section A and any other THREE from Section B.

ISO 9001:2008 CERTIFIED



## SECTION A: COMPULSARY QUESTIONS [15 MARKS EACH]

- 1. Discuss the following:
  - a. Electrophoresis (3mks)
  - b. Gas chromatography (3mks)
  - c. Centrifugation (3mks)
  - d. Spectrophotometer (3mks)
  - e. Microtomes (3mks)
- 2. Discuss the following as used in scientific methods.
  - a. interpretation (3mks)
  - b. prediction (4mks)
  - c. experiment (4mks)
  - d. repetition (4mks)

### SECTION B: [10 MARKS EACH]

- 3. Discuss experimental methods of calorimetry. (10 mks)
- 4. Explain how you will determine the pH and EC in a water sample using electrode probes. (10 mks)
- 5. Describe the main features of AAS. (10 mks)
- 6. Describe the information that must be contained in a field record. (10 mks)
- 7. Describe remote sensing and its techniques. (10 mks)