

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2014

TITLE OF PAPER : RESEARCH TECHNIQUES

COURSE CODE: ERM610

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :  
1. THIS PAPER HAS FIVE (5) QUESTIONS  
2. ANSWER ANY THREE (3) QUESTIONS  
3. WHEREVER POSSIBLE ILLUSTRATE YOUR ANSWERS WITH LARGE CLEARLY LABELLED DIAGRAMS

SPECIAL REQUIREMENTS: NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATORS

**QUESTION 1**

Account for the need for assessment of biodiversity and discuss the various methods which may be used for such.

[30 marks]

**QUESTION 2**

Evaluate the concept of molecular markers in characterisation, rationalisation and management of crop germplasm collections in resource-limited settings.

[30 marks]

**QUESTION 3**

Suppose you are a policy-maker in Swaziland, devise and substantiate a check-list of activities that would ensure sound *ex-situ* and *in-situ* biodiversity conservation and monitoring platform.

[30 marks]

**QUESTION 4**

Outline steps of how microbiologists isolate microbes of interest from the environment. Elaborate on the sterile techniques utilised in this process.

[30 marks]

**QUESTION 5**

**Describe and discuss the techniques that are used to prepare tissues for histological study.**

**[30marks]**