

**UNIVERSITY OF SWAZILAND**

**MAIN EXAMINATION PAPER 2013**

**TITLE OF PAPER** : BIOCONTROL AND ECOSYSTEMS

**COURSE CODE** : ERM610

**TIME ALLOWED** : THREE HOURS

**INSTRUCTIONS** :

1. THIS PAPER HAS SIX (6) QUESTIONS
2. ANSWER ANY FOUR (4) 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**

Examine the main techniques in pest management and discuss why using a combination of these is better than the use of any single method.

[25 marks]

**Question 2**

Give an account of a specific invasive pest, the problem/s it causes and biological control measures which have been used against it.

[25 marks]

**Question 3**

What is a pesticide treadmill? Explain why pests often resurge or rebound after treatment with pesticides and how they become pesticide resistant.

[25 marks]

**Question 4**

'In combination with natural advantage, pests are manmade.' Discuss this statement in relation to insects and weeds.

[25 marks]

**Question 5**

Describe steps followed for the implementation of a Biological control programme.

[25 marks]

**Question 6**

What is genetic engineering? Examine the environmental impacts of this technology on ecosystem services.

[25 marks]