

**UNIVERSITY OF SWAZILAND  
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE &  
PLANNING**

**FINAL EXAMINATION, DECEMBER 2012  
MSc**

**TITLE OF PAPER : ENVIRONMENTAL MANAGEMENT AND  
RESOURCE ECONOMICS**

**COURSE NUMBER : ERM 601**

**TIME ALLOWED : THREE (3) HOURS**

**INSTRUCTIONS : ANSWER TWO (2) QUESTIONS  
ILLUSTRATE YOUR ANSWERS WITH  
APPROPRIATE DIAGRAMS**

**MARK ALLOCATION : EACH QUESTION CARRIES FIFTY (50)  
MARKS**

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

**ERM 601: ENVIRONMENTAL MANAGEMENT AND RESOURCE ECONOMICS**

**ANSWER TWO QUESTIONS**

**QUESTION 1**

- a) Provide a detailed diagram that shows the functional elements of risk assessment. (10 marks)
  - b) Explain the various interactions shown in the diagram in (a) above. (15 marks)
  - c) With reference to examples from Southern Africa examine the health and environmental risks associated with pesticides. (15 marks)
  - d) Evaluate the policy instruments that are currently employed in the Kingdom of Swaziland to mitigate the negative impacts of pesticides. (10 marks)
- (50 marks)**

**QUESTION 2**

Discuss how you would use the 'Driving Forces-Pressure-State-Impact-Response' (DPSIR) model as an environmental management tool. (50 marks)

**QUESTION 3**

Examine the economic instruments that are currently employed by the Kingdom of Swaziland to mitigate the negative impacts of socio-economic activities on the biophysical environment. (50 marks)

**QUESTION 4**

- a) 'Environmental resources have total economic value'. Discuss the statement. (20 marks)
  - b) Examine the environmental and economic costs of soil erosion and conservation benefits in the Kingdom of Swaziland. (30 marks)
- (50 marks)**

**END OF EXAM PAPER**