



**UNIVERSITY OF SWAZILAND  
FINAL EXAMINATION PAPER**

**PROGRAMME:** BSC LWM 4 AND BSC AG ED 4

**COURSE CODE:** LUM 404

**TITLE OF PAPER:** NATURAL RESOURCES MANAGEMENT

**TIME ALLOWED:** TWO (2) HOURS

**SPECIAL MATERIAL REQUIRED:** NONE

**INSTRUCTIONS:** ANSWER QUESTION ONE AND ANY TWO  
OTHER QUESTIONS.

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN  
GRANTED BY THE CHIEF INVIGILATOR**

**SECTION A. COMPULSORY QUESTION****Question One**

- a. Give any three land use practices that increases the chances of flooding. (Explain the effect of each on precipitation that leads to flooding). **15 marks**
- b. Describe how you would control and prevent flooding using the methods listed below;
- |      |                          |    |                 |
|------|--------------------------|----|-----------------|
| i.   | Dredging                 | /5 |                 |
| ii.  | Protection of watersheds | /5 |                 |
| iii. | Zoning floodplains       | /5 | <b>15 marks</b> |
- c. Describe the environmental impacts of inorganic nutrient pollutants (nitrates and phosphates) in water resources. **10 marks**

**SECTION B. ANSWER ANY TWO QUESTIONS****Question Two**

- a. What is sediment pollution? **3 marks**
- b. Discuss any three environmental impacts of sediment pollution **12 marks**
- c. Developed countries often move their manufacturing companies to least developed countries to for certain reasons that suit their production operations. This is often viewed as abuse of least developed countries of various forms. Discuss any two reasons why these companies prefer to work in least developed countries? **10 marks**
- d. Describe one of the effects of the condition described in part (c) in natural resources conservation in least developed countries. **5 marks**

**Question Three**

a. Explain the meaning of the following terms as used in resources management;

i. Sustainable development /5

ii. Social justice /5

iii. Flood plain /5

iv. Agenda 21 /5

**20 marks**

b. Briefly describe how the water Act of 2003 of Swaziland intends to promote responsible water resources use and management by the local communities?

**10 marks**

**Question Four**

a. Using the example of Botswana explain why land tenure reform is important for sound natural resources management.

**15 marks**

b. Discuss three land management issues on Swazi Nation Land that may contribute to a decline in agricultural production.

**15 marks**