



**UNIVERSITY OF SWAZILAND  
SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME: DIPLOMA IN AGRICULTURE 1  
DIPLOMA IN AGRICULTURAL EDUCATION 1  
REMEDIAL YEAR IN AGRICULTURE  
REMEDIAL YEAR IN AGRIC. EDUCATION**

**COURSE CODE: LUM 101**

**TITLE OF PAPER: AGRICULTURAL GEOGRAPHY**

**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 1: COMPULSORY QUESTION****QUESTION ONE**

- a) Describe how domestic or industrial waste could cause ground water pollution?  
(10 marks)
- b) Illustrate the difference between confined aquifer and non-confined aquifer.  
(10 marks)
- c) Using the Rational Method, estimate the design peak runoff rate and the design capacity of a reservoir to hold water if it rained for 2 hrs under the following condition:

Rainfall intensity for design return period = 35mm/hr

Rectangular catchment area of 0.2 km by 0.3 km

Runoff coefficient of 0.3 (20 marks)

**QUESTION TWO**

- a) Describe the three characteristics of contour lines that are useful guides in drawing and interpreting contour maps. (15 marks)
- b) Explain the relationship between long-term annual rainfall and altitude in Swaziland, highlighting its implication on the distribution of the major crops within the different agro-ecological zones of the country. (15 marks)

**QUESTION THREE**

- a) Describe the link between industrial activities and global climate change. (15 marks)
- b) What is the difference between weather and climate? (5 marks)
- c) Describe the three major precipitation forming conditions. (10 marks)

**QUESTION FOUR**

a) Write short notes that fully explain the following:

i) Relative humidity

ii) Dew point temperature

iii) Consumptive use

iv) Contour line

(20 marks)

b) Explain three major uses of aerial photographs. (10 marks)