

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

**SUPPLEMENTARY EXAMINATION:  
B.Sc. II**

**JULY 2006**

**TITLE OF PAPER : WATER RESOURCES**

**COURSE NUMBER : GEP 228**

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

**INSTRUCTIONS : SECTION A IS COMPULSORY  
ANSWER ANY TWO QUESTIONS FROM  
SECTION B  
ILLUSTRATE YOUR ANSWERS WITH  
APPROPRIATE DIAGRAMS**

**MARKS ALLOCATED : QUESTION 1 CARRIES 40 MARKS  
THE OTHER QUESTIONS CARRY 30  
MARKS EACH**

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

**SECTION A: COMPULSORY QUESTION**

**Question 1:**

Discuss the fact that the polar regions do not get extremely cold and the tropics extremely hot. (40 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS**

**Question 2:**

- (a) Describe the factors influencing an urban micro climate. (15 marks)
  - (b) Discuss the effect of climate on agricultural activities in Swaziland. (15 marks)
- (30 marks)**

**Question 3:**

Describe the characteristics and distribution of water resources in Swaziland (30 marks)

**Question 4:**

- (a) Explain the importance of discharge measurement in water resources. (15 marks)
  - (b) Describe two methods of discharge measurement. (15 marks)
- (30 marks)**

**Question 5:**

Describe and explain two methods of estimating the water resource of a catchment. (30 marks)