

**UNIVERSITY OF SWAZILAND
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE
AND PLANNING
FINAL EXAMINATION, MAY 2009
(BASS, BED, BAH)**

TITLE OF PAPER: PHYSICAL RESOURCES

COURSE CODE: GEP 216

TIME ALLOWED: THREE HOURS

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

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

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

SECTION A

QUESTION 1 (COMPULSORY)

- a. Using their characteristics, differentiate between basaltic, andesitic and rhyolitic magma. (15 marks)
- b. Explain how the rate of cooling of magma determines mineral composition and the grain size of the resulting igneous rock. (25 marks)
(40 marks)

SECTION B

ANSWER ANY TWO QUESTIONS

QUESTION 2

- a. Describe the characteristics and movement of air masses. (15 marks)
- b. Explain how modification of air masses may affect the weather of the regions over which they move. (15 marks)
(30 marks)

QUESTION 3

Discuss the role of plate tectonics in the gross shape of the lithosphere landscape. (30 marks)

QUESTION 4

- a. Describe the role of the amount of radiation received in tropical weather characteristics. (15 marks)
- b. Explain how latitude and altitude affect highland climates. (15 marks)
(30 marks)

QUESTION 5

- a. Discuss the role of evaporation, condensation and sublimation in the movement of water between the major spheres. (20 marks)
- b. Explain how the movement in (a) above may result in the gain or loss of energy in the atmosphere. (10 marks)
(30 marks)