

**UNIVERSITY OF SWAZILAND
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE
AND PLANNING
SUPPLEMENTARY EXAMINATION, JULY 2008
(BAH, BED, BASS)**

TITLE OF PAPER: PHYSICAL RESOURCES

COURSE CODE: GEP 216

TIME ALLOWED: THREE HOURS

**INSTRUCTIONS: ANSWER QUESTION ONE AND
ANY TWO QUESTIONS FROM
SECTION B**

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

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GRANTED BY THE INVIGILATOR**

SECTION A

QUESTION 1 (COMPULSORY)

- a. Explain the various factors which influence highland climates highlighting how these climates differ from that in the Mid-, High-, and Low-latitudes. (20 marks)
- b. Describe how convection currents in the asthenosphere result in the formation of the following:
- i. New tectonic plates (5 marks)
 - ii. Sea Floor spreading (5 marks)
 - iii. Linear fold mountains (5 marks)
 - iv. Batholiths (5 marks)

(40 marks)

SECTION B

ANSWER ANY TWO QUESTIONS

QUESTION 2

- a. Discuss the factors that determine the rate of weathering of rocks. (10 marks)
- b. Using examples, describe the processes involved in mechanical weathering of rocks and the various landforms produced. (20 marks)

30 marks)

QUESTION 3

Describe the following mass wasting processes stating measures that could be taken to reduce their occurrence.

- a. Landslides (6 marks)
- b. Mudflows (6 marks)
- c. Soil creep (6 marks)
- d. Avalanches (6 marks)
- e. Earth flow (6 marks)

(30 marks)

QUESTION 4

Discuss the factors that are responsible for the occurrence of different climates in different regions. **(30 marks)**

QUESTION 5

Discuss the factors responsible for the modification of air masses as they move from their point of origin. **(30 marks)**