

The National University of Lesotho
BSc and BA Examination
PG 3422: Geomorphological Techniques Supplementary Exam

August 2023

Duration: 3 hours

Marks: 100

Instructions:

- Answer any **four (4)** questions
 - Where applicable illustrate your answer with diagrams.
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Question 1

Define physically based models, giving example, how it is used and mention its inputs and outputs. (25)

(25)

Question 2

- a) Define the meaning of the term techniques in data collection in geomorphology. (5)
- b) Define geomorphological models and how they are used in scientific investigation. (20)

(25)

Question 3

- a) What knowledge do we acquire from scientific methods in geomorphology? (10)
- b) Mention and describe main branches of geomorphological investigation and give examples of data acquired under each branch. (15)

(25)

Question 4

- a) Discuss the two main processes that are dependent on hillslope and how they depend on hillslope. (10)
- b) How can we manage and control processes mentioned in (a) above? (10)
- c) Describe how runoff plots operate. (5)

(25)

Question 5

- a) Explain why cartographic knowledge is important in Geomorphology. (5)
 - b) Differentiate between Digital Elevation Model and topographic maps and explain their uses in geomorphology. (8)
 - c) What features are mostly depicted by the contours and how are they interpreted? (12)
- (25)**

Question 6

- a) What characterises and parameters are used to describe a drainage basin or a catchment? (10)
 - b) Define stream orders concept and why it is important in drainage basins analysis, give an example of one method used to describe stream orders (15)
- (25)**