

The National University of Lesotho
BSc and BA Examination
PG 4422: Applied Geomorphology

May 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

Discuss how sustainable food production can be achieved without degrading the land.

(25)

Question 2

Discuss the spatial and temporal occurrences of extreme weather events in Lesotho and how they cause land degradation, give specific examples.

(25)

Question 3

Discuss how different human activities affect rivers systems and how the impacts can be minimised.

(25)

Question 4

From your respective catchments, discuss the existing problems, intervention measures either from the government or NGOs and recommendations.

(25)

Question 5

a. Discuss land cover and its relationship with landforms and landforms changes. (15)

b. Explain how soils porosity and permeability affect the catchment yield. (10)

(25)

Question 6

With reference to Polihali dam construction, discuss how dam constructions are likely to affect landforms, and discuss dam wall stability based on existing landforms and rocks type. (25)