



FACULTY	FACULTY OF AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
DEPARTMENT	ENVIRONMENTAL SCIENCE		
SUBJECT	GEOMORPHOLOGY		
SUBJECT CODE	GHE 3601		
DATE	June 2022		
DURATION	2 Hours	MARKS	70

SUPPLEMENTARY/ SPECIAL EXAMINATION

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External Moderator: Prof. M.D. Simatele, University of Witwatersrand

INSTRUCTIONS

1. Present your work as neatly as possible.
2. This paper consists of 2 pages; **including** this cover page.
3. **Answer all the questions.**
4. Use your Examination Answer Book for all the notes you are taking during the examination.

1. Match the column A with the correct word in column B. Indicate only the answer.
Example: 1. Angle of repose. Each point is allocated 2 marks.

Column A	Column B
1. The extremely slow downhill movement of soil and regolith is called _____.	A. Colluvium B. Debris flows C. Earthflow D. Induce E. Lake F. Pores G. Regolith H. Scarification I. Soil creep
2. When mudflows pick up rocks and boulders, they are called _____.	
3. Landslides can be responsible for the formation of _____.	
4. Mass wasting in which water-saturated soil and regolith slowly flows downhill is referred to as an _____.	
5. The general term to describe land disturbances such as excavations and strip mining is _____.	
6. _____ is the source for sediment, which may be transformed into soil.	
7. Human activities can _____ mass wasting in forms ranging from mudflow and earthflow to landslide.	
8. Accumulations of regolith at the foot of a slope are called _____.	
9. The small spaces between mineral grains are called _____.	

2. Briefly describe the following chemical weathering:
- i. Oxidation 4
 - ii. Dissolution 4
 - iii. Solution 4
3. Explain how the erosion and deposition in the river end up forming the landforms, including floodplain, natural levees, bluff, and backwash. 10
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4. Explain how Wave erosion leads to formation of sea cliffs, a notch, sea caves, arches, stacks, a shore platform. 10
5. Dunes types depend on the presence of three factors.
- i. Names the three factors. 6
 - ii. Why does the leeward side of a sand dune (the slip of face) have a steeper slope than the windward side? 4
6. Explain how Alpine (mountain) glacier leads to formation of cirque glacier, valley glacier, piedmont glacier, tidewater glacier and Ice berg. 10