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- 1) Explain the following: (18 degree)
- a) Slumps and Slides.
  - b) Solifluction and Creep.
  - c) Prevention and Mitigation Mass Movement Hazard.

- 2) Compare between the following beach sediments. (8 degree)

Sample No.	Mz ( $\emptyset$ )	$\sigma_1$ (kN/m <sup>2</sup> )
1	2.30	0.3
2	2.85	0.4

- 3) Discuss the following: (18 degree)
- a) Groins.
  - b) Breakwaters.
  - c) How headlands erode over time.

- 4) What will be the expected shapes of the shores after their protection by the following detached breakwaters parameters? (8 degree)

Site	Breakwater Length (m)	Distance between Breakwaters Shoreline (m)
A	300	520
B	200	150

- 5) Explain the following: (18 degree)
- a) Beach cusps.
  - b) Different Types of Tides.
  - c) Spring and Neap Tide (Tidal patterns).

Best regards

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Faculty of Science 1<sup>st</sup> Semester

Code: (201 ب)

Environmental Sciences Department

Time: 2 Hours

2<sup>nd</sup> Year Examination (Jan 2024)

Full Mark: 70 degree

Answer with simple sketches the following questions: (70 degree)