



American University of Beirut
Geology 101
Sections 1, 2 and 3
Final Exam



June 9th, 2000

Student's name: _____

Part I

Choose the best answer (4 pts each, total 40 pts):

1. The volume of water flowing past a given point in a specified length of time is a:
 - a) discharge
 - b) load
 - c) drainage basin
 - d) gradient

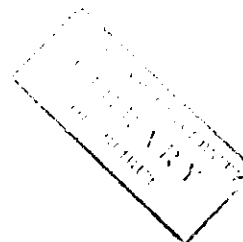
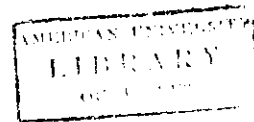
2. The depth at which water motion is negligible is:
 - a) wave refraction
 - b) stage
 - c) wave base
 - d) crest

3. Unusually high tides during a storm are called:
 - a) a berm
 - b) a surge
 - c) a barrier island
 - d) a beach

4. The factors that control flood severity are:
 - a) infiltration
 - b) vegetation
 - c) topography
 - d) all of the above
 - e) none of the above

5. A rapid mass movement is
 - a) a landslide
 - b) a gravity
 - c) a greenhouse effect
 - d) a sea level rise

6. The angle of repose is:
 - a) low for coarse irregular particles
 - b) low for fine and round particles
 - c) independent of particle size and shape



7. A rotational movement of the soil mass always occurs in:
- a mass movement
 - a landslide
 - a slide
 - a slump
8. A fifty-year flood has a chance to be exceeded in any one year of:
- 20 percent
 - 2 percent
 - 50 percent
 - 5 percent
9. The current sea level is:
- rising at about 1/3m per century
 - declining at about 1/3m per century
 - rising at about 30m per century
 - declining at about 30m per century
10. The time lag between a precipitation event and the peak flood discharge is:
- the peak lag time
 - the peak discharge
 - overtopping

Part II.

Answer only 6 of the following 9 questions (10 pts each, total 60 pts):

1. Review longshore currents and their effect on sand (with a graph including groins-jetties)
2. Discuss the recognition of coastal hazards
3. Review the possible preventive measures for mass movements (with graphs)
4. Draw and label a figure representing the hydrologic cycle
5. Draw and label a figure representing the flood plain evolution
6. Review the soil classification
7. Review the residence time of an element or compound in a certain reservoir (with formula)
8. Review the soil profile. Draw and label a figure representing a generalized soil profile (with a code and a label for each horizon)
9. Review the following three hazards related to volcanoes: pyroclastics, lahars and pyroclastic flows

Notes:

A penalty exists if you answer more than 6 questions in Part II.

Answer Part I on the questionnaire and Part II on the Examination book.