

**Bago University**  
**Department of Geology**  
**First Semester Examination, March 2019**

**Fourth Year**  
**(Geology Specialization)**

**Geol. 4105**  
**Applied Geology I**  
**(Engineering Geology and Hydrogeology)**  
**Time Allowed: (3) Hours**

**Answer any Five questions with appropriate sketches wherever necessary.**

1. What are the engineering properties of rocks? Explain **any four** of them.
  2. What is dam? Explain the geological investigation of dam site.
  3. Explain the stability of bridges and geological investigation of bridges.
  4. Discuss on the environmental consideration of construction of large buildings and large dams.
  5. Define hydrogeology and fully describe the hydrologic cycle.
  6. Write notes on the following:
    - (a) Occurrence of groundwater
    - (b) Darcy's law of groundwater motion, specific yield and specific retention
  7. Write notes on the following:
    - (a) Unconfined aquifer    (b) Confined aquifer
    - (c) Leaky aquifer        (d) Idealized aquifer
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