

**CEL 222: Engineering Geology and Soil Mechanics**

**Major Exam 29/4/2008**

*Please write clear, precise, point to answers*

Time: 60 minutes

Credit: 40%

**Name:**

**Registration No.:**

**Group:**

1. A level fence line 200 m long is recorded on a vertical photograph taken with a camera having a 152 mm lens. A topographic map indicates that the fence line is at an elevation of 1120 m above the sea level. If the fence line is 20 mm long on the photograph, determine the flying height above the sea level. (10 Points)
  
2. A proposed construction site is underlain by a sedimentary rock that was formed from rounded gravel size particles and sand. The gravel size particles represent 75% of the total mass. What is the name of the rock? Would you expect it to provide good support for the proposed structural foundations? Will it be difficult to excavate? (10 Points)
  
3. List three principal differences in air-photo identification of granitic rock versus sandstone. (10 Points)
  
4. Which would probably provide a better support for a large, heavy building, diorite or shale? Why? (3 Points)