

ENGINEERING GEOLOGY GLY 364

SEMESTER TEST: MEMO

30 September 2011

TIME: 2 hours
MARKS: 100

**ANSWER QUESTIONS 1 – 5 ON THE PROVIDED ANSWER SHEET
ANSWER QUESTION 6 IN THE PROVIDED ANSWER BOOK**

Question 6

[25]

Explain what you understand by the term “rock”.

List and elaborate on the five geological factors that may influence rock.

Questions 1 – 5 [75]

TOTAL

[100]

Rock – aggregate

different minerals – each retains its chemical & physical properties

types – igneous (cooling & crystallization); Sedimentary (deposition & lithification);

metamorphic (change due to T and P)

5 factors:

intact rock – grains and micro-structure; stress strain - UCS

discontinuities – weak planes in rock; influence rock mass; genesis important

pre-existing stress – overburden and tectonics; change stress conditions due to structures

pore fluids & flow – matrix low, discontinuities high

time – engineering vs. geological time