

Prince of Songkla University
Faculty of Engineering

Midterm Examination : Semester II
Date : 24 December 2002
Subject : 235-402 Geotec Mining Engin.

Academic Year : 2002
Time : 09.00-12.00 a.m.
Room : R 201

Instruction

1. There are 7 questions of this open examination, select to do only 5 questions
2. Dictionary, a calculator without programming capability are allowed
3. Answer all questions in this paper
4. Write your name in each page and returned all papers to controllers
5. Total marks are 100 or 30 %

Number	Mark	Received Mark
1	20	
2	20	
3	20	
4	20	
5	20	
6	20	
7	20	
Total	100	

Name Surname Code

Bonne Chance et bon courage
Danupon Tonnayopas
18 Dec 2002

1. Narathiwat gneiss sample was subjected to point load tests. The result was shown in a table following below.

- a) Calculate: point load strength index (I_{s50}),
- b) Find the anisotropy index, and
- c) Based on the answer a) estimate the unconfined compressive strength

Type	W mm	D mm	P kN						
i ⊥	30.4	17.2	2.687						
i ⊥	16.0	8.0	0.977						
i ⊥	19.7	15.6	1.962						
i ⊥	35.8	18.1	3.641						
i ⊥	42.5	29.0	6.119						
i ⊥	42.0	35.0	7.391						
b ⊥	44.0	21.0	4.600						
b ⊥	40.0	30.0	5.940						
b ⊥	19.5	15.0	2.040						
b ⊥	33.0	16.0	2.870						
d //	-	49.93	5.107						
d //	-	49.88	4.615						
d //	-	49.82	5.682						
d //	-	49.82	4.139						
d //	-	49.86	4.540						
d //	-	25.23	1.837						
d //	-	25.00	1.891						
d //	-	25.07	2.118						
d //	-	25.06	1.454						
d //	-	25.04	1.540						

Note : d = diametral; a = axial; b = block; i = irregular lump; ⊥ = perpendicular with failure plane; // = parallel with failure plane

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