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Unit 9 - Week 7

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Assignment 7

Assignment 7

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.**Due on 2019-03-20, 23:59 IST**

1)

1 point

For direct shear test, the sample size of sandy soil is generally taken as

(a) 5 cm × 5 cm (b) 6 cm × 6 cm (c) 7 cm × 7 cm (d) 8 cm × 8 cm

- a
- b
- c
- d

No, the answer is incorrect.**Score: 0****Accepted Answers:**

b

2)

1 point

In a direct shear test, a dry sand sample failed at a shear stress of 77 kPa when the normal stress on the sample was 125 kPa. The angle of internal friction of the sand sample is approximately

(a) 20° (b) 28.1° (c) 31.6° (d) 37.4°

- a
- b
- c
- d

No, the answer is incorrect.**Score: 0****Accepted Answers:**

c

3)

1 point

In triaxial test, L/D ratio is generally taken as (where L = Length of the sample; D = Diameter of the sample)

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Solution**No, the answer is incorrect.****Score: 0****Accepted Answers:**

c

4)

1 point

What will be the shearing resistance (in kN/m^2) of a sample of clay in an unconfined compression test falls under a load of 140 N? Take change of cross-sectional area $\Delta A = 2288.7 \text{ mm}^2$

- (a) 61.17 (b) 68.77 (c) 75.45 (d) 87.12

 a b c d**No, the answer is incorrect.****Score: 0****Accepted Answers:**

a

5)

1 point

A saturated sample of $c-\phi$ soil failed at a deviator stress of 470 kN/m^2 in a drained triaxial test. The angle between the failure plane and horizontal was 65° . Take cohesion (c) of sample is 20.0 kN/m^2 . The values of principal stresses (in kN/m^2) are

- (a) 555.47 and 85.47
 (b) 576.73 and 106.73
 (c) 642.12 and 172.12
 (d) 687.43 and 217.43

 a b c d**No, the answer is incorrect.****Score: 0****Accepted Answers:**

b

6)

1 point

A CD test was carried out for a soil sample. The magnitude of applied cell pressure was 300 kN/m^2 . Deviator pressure at failure was found to be 220 kN/m^2 . Determine the angle between failure plane and major principal plane if drained cohesion (c') value is zero.

- (a) 52.78° (b) 55.79° (c) 61.22° (d) 65.32°

 a b c d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

7) 1 point

For the data given in Question No. 7, the drained friction angle (ϕ') will be

- (a) 25.45° (b) 22.41° (c) 17.34° (d) 15.56° 

- a 
 b 
 c 
 d 

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

8) 1 point

For the data given in Question No. 7, the normal and shear stress (in kN/m^2) on a failure plane will be respectively,

- (a) 338.59 and 105.97
(b) 380.49 and 105.97
(c) 380.49 and 121.45
(d) 338.59 and 121.45

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

9) 1 point

In unconfined compression test the values of σ_2 and σ_3 are, respectively,

- (a) 1.0, 0.0 (b) 0.0, 0.0 (c) 0.5, 0.0 (d) 0.0, 1.0

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

10) 1 point

Radius of Mohr Circle for unconfined compression test results is

- (a) c_u (b) q_u (c) $c_u/2$ (d) $c_u/4$

Where c_u is the undrained cohesion of the soil, q_u is the unconfined compressive strength of the soil.

- a
 b
 c
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

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