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Courses » Soil Mechanics/Geotechnical Engineering I

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## Unit 3 - Week 1

Register for  
Certification exam

### Course outline

How to access the  
portal

#### Week 0

#### Week 1

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cycle

Lecture 2 : Soil  
Formation

Lecture 3 : Soil  
Classification

Lecture 4 : Soil  
Classification

Lecture 5 : Soil  
Classification

Quiz : Practice  
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Feedback for  
Week 1

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## Assignment 1

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2019-02-13, 23:59 IST**

1) 1 point

The boundary water content between the plastic state to semisolid state is called

- (a) liquid limit  
(b) plastic limit  
(c) shrinkage limit  
(d) permeability limit

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

2) 1 point

If the liquid limit and plastic limit of a soil are 43% and 23% respectively then the plasticity index of the soil is

- (a) 10%      (b) 17%      (c) 20%      (d) 30%

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

3) 1 point

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Assignment  
Solution

Develo

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

4) If the plasticity index of a soil is 10 then the soil can be classified as 1 point

- (a) Low plastic  
(b) Highly plastic  
(c) Medium plastic  
(d) Non plastic

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

5) 1 point  
A soil has a liquid limit of 55% and lies above the "A-line" when plotted on a plasticity chart. The group symbol of the soil as per IS soil classification is

- (a) CH                      (b) CI                      (c) MI                      (d) CL

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

6) 1 point  
A soil has a liquid limit and plastic limit of 40% and 20% respectively. As per the plasticity chart and IS soil classification the group symbol of the soil is

- (a) CH                      (b) CI                      (c) MI                      (d) CL

- a  
 b  
 c  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

b

7) 1 point

If the relative density of a granular soil is 72% then the soil can be classified as

- (a) Loose  
 (b) Medium  
 (c) Dense  
 (d) Very dense

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

c

8) 1 point

The void ratios of soil in its loosest and densest state are 0.9 and 0.4. If the void ratio in the natural state is 0.5, the relative density is

- (a) 55%      (b) 67%      (c) 74%      (d) 80%

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

9) 1 pointIn a shrinkage limit test, let  $V_1$  and  $V_2$  be the initial and final volumes of the sample and  $W_1$  and  $W_2$  be its corresponding weights. Let unit weight of water is  $\gamma_w$ . By definition, the shrinkage limit of the sample is

(a) 
$$\frac{(W_1 - W_2) - (V_1 - V_2)\gamma_w}{W_2}$$

(b) 
$$\frac{(W_1 - W_2) + (V_1 - V_2)\gamma_w}{W_2}$$

(c) 
$$\frac{(W_1 + W_2) - (V_1 - V_2)\gamma_w}{W_2}$$

(d) 
$$\frac{(W_1 - W_2) + (V_1 + V_2)\gamma_w}{W_2}$$

- a  
 b  
 c  
 d

No, the answer is incorrect.

Score: 0

Accepted Answers:

a

10)

1 point

The uniformity coefficient ( $C_u$ ) for a well graded sand, must be greater than

(a) 3                      (b) 4                      (c) 5                      (d) 6

- a
- b
- c
- d

No, the answer is incorrect.

Score: 0

Accepted Answers:

d

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