

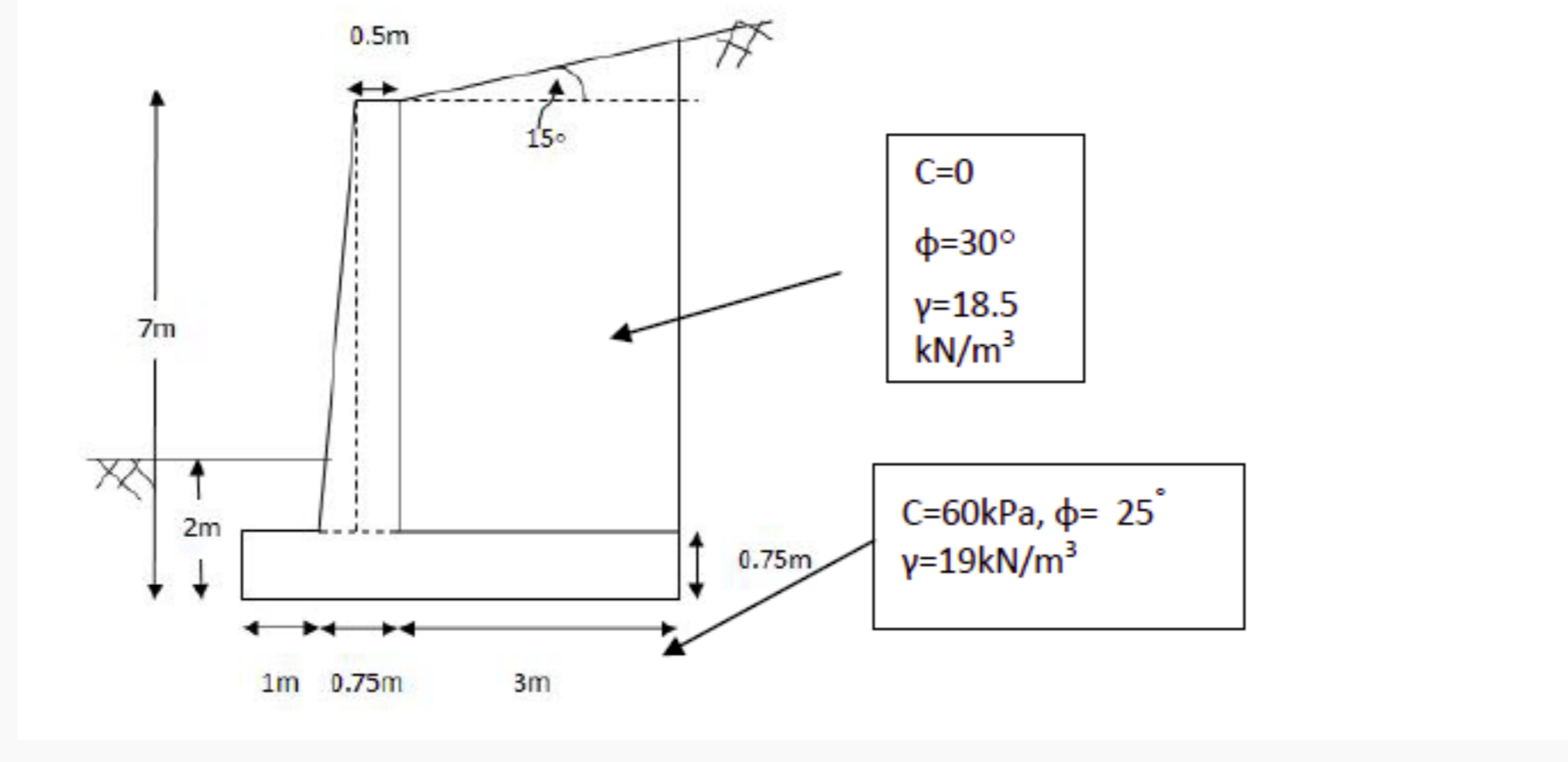


## Unit 13 - Week 11

## Assignment 11

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

**Due on 2019-10-16, 23:59 IST.**



1) 1 point

Find the factor of safety of retaining wall with respect to sliding. The Soil properties above and below base of wall are given in the diagram. Use Rankine's theory for earth pressure calculation. Use  $\gamma_{\text{concrete}}=24 \text{ kN/m}^3$ ,  $\delta = 0.67\phi_{\text{soil}}$  below base and  $\alpha = 0.55$ .

- (a) 1.66  
(b) 2.62  
(c) 2.12  
(d) 3.71

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(a)

2) Find the factor of safety against overturning for problem 1 . 1 point

- (a) 5.21  
(b) 3.42  
(c) 3.78  
(d) 2.22

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(b)

(a)

(b)

(c)

(d)

3) Weep holes are provided in retaining walls mainly for the following reason 1 point

- (a) To improve the appearance  
(b) To provide the drainage of the backfill  
(c) To avoid crack to due to shrinkage  
(d) To avoid friction behind the wall

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(b)

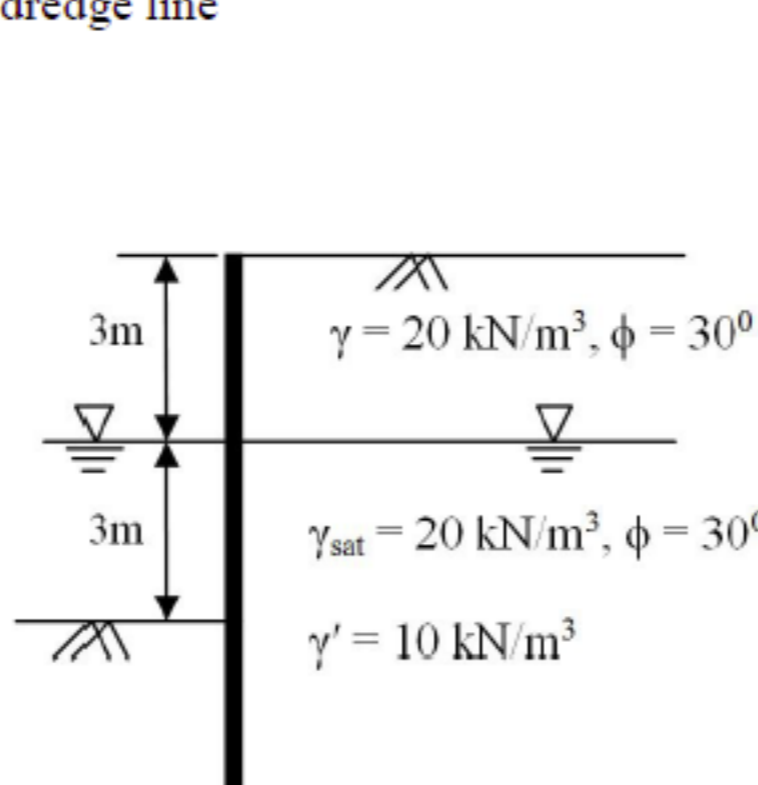
(a)

(b)

(c)

(d)

4) For the cantilever sheet pile wall shown in fig, compute the distance of point of zero pressure (a') below dredge line 1 point



- (a) 1.13 m  
(b) 1.52 m  
(c) 1.61 m  
(d) 2.03 m

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(a)

(b)

(c)

(d)

5) What is the expression for eccentricity, e? 1 point

(a)  $e = \frac{b}{6} - \frac{\sum M_R - \sum M_O}{\sum V}$

(b)  $e = \frac{b}{6} - \frac{\sum M_O - \sum M_R}{\sum V}$

(c)  $e = \frac{\sum M_R - \sum M_O}{\sum V}$

(d)  $e = \frac{b}{2} - \frac{\sum M_R - \sum M_O}{\sum V}$

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(d)

(a)

(b)

(c)

(d)

6) As compared to the cantilever sheet pile, the required depth of the anchored sheet pile below the dredge level is 1 point

- (a) More  
(b) Less  
(c) Same  
(d) All the above

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(b)

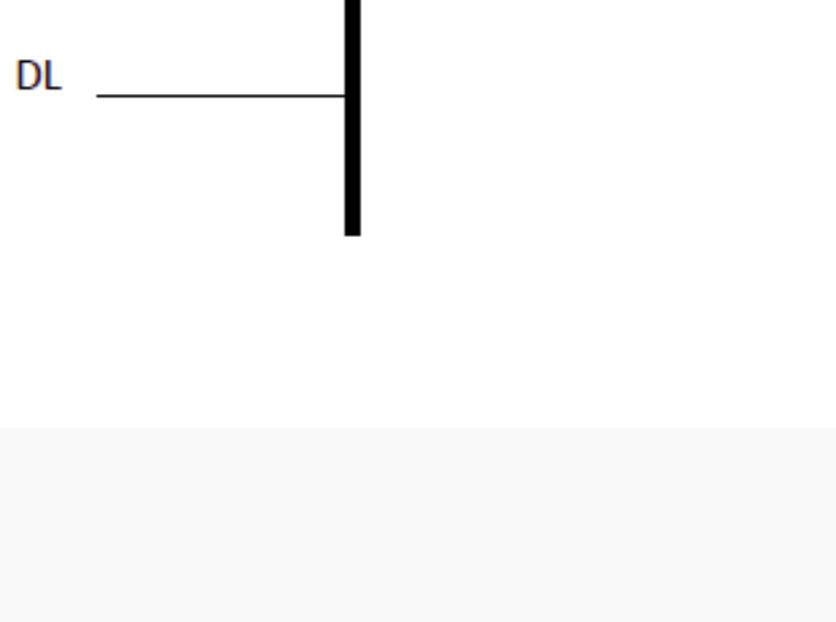
(a)

(b)

(c)

(d)

7) What will be tension in the anchor shown in the figure below? 1 point



- (a)  $P_a$   
(b)  $P_p$   
(c)  $P_p - P_a$   
(d)  $P_a - P_p$

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(d)

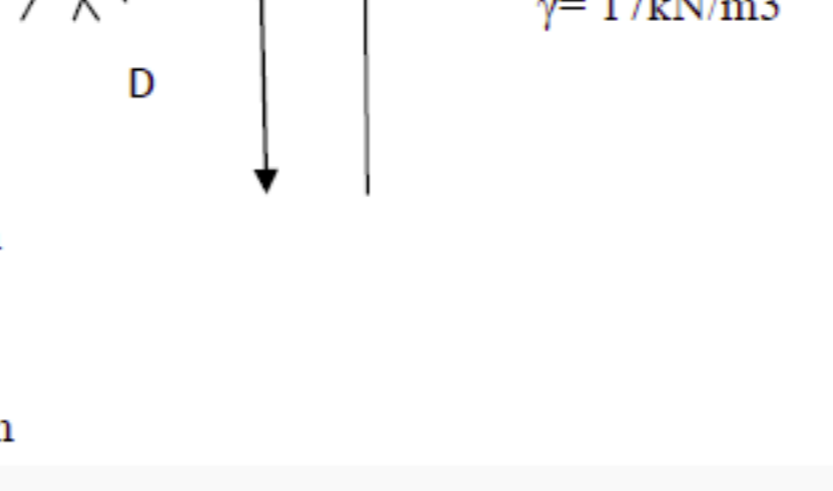
(a)

(b)

(c)

(d)

8) Determine the depth of embedment for the sheet pile shown below. Use Approximate method for earth pressure calculation. 1 point



- (a) 4.55m  
(b) 2.1 m  
(c) 5.5 m  
(d) 1.73 m

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(c)

(a)

(b)

(c)

(d)

9) An anchor sheet pile driven to a shallow depth will have 1 point

- (a) Free earth support  
(b) Fixed earth support  
(c) Roller support  
(d) None of the mentioned

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(a)

(a)

(b)

(c)

(d)

10) Shear keys are provided to 1 point

- (a) Avoid friction behind the wall  
(b) Improve the appearance  
(c) Increase the passive resistance  
(d) All of the mentioned

- (a)  
 (b)  
 (c)  
 (d)

No, the answer is incorrect.  
Score: 0

Accepted Answers:

(c)

(a)

(b)

(c)

(d)