Assignment 9

The due date for submitting this assignment has passed. Assignments are graded but they cannot be resubmitted this assignment.

1. The pile load test is generally used to:
   a) determine the ultimate bearing capacity of the pile
   b) evaluating the settlement of the pile
   c) both (a) and (b)
   d) none of the above

No, the answer is incorrect.

Assessed by:
1 point

2. The efficiency of pile group depends on:
   a) characteristics of pile
   b) spacing of pile
   c) type of soil
   d) all of the above

No, the answer is incorrect.

Assessed by:
1 point

3. Which of the following formulas can be used for determining the efficiency of pile group?

   a) Dynamic formula
   b) Static formula
   c) Compressive formula
   d) None of these

No, the answer is incorrect.

Assessed by:
1 point

4. For four free standing piles group (arranged in a square pattern) having arc tan value of (31.21) in degrees, the efficiency as far as the Compressive Laboratory formula would be:
   a) 75.0
e) 75.10%
   d) 75.14%
   d) 75%

No, the answer is incorrect.

Assessed by:
1 point

5. A 100 mm diameter, 11.8 m long piles are used as foundations for a column to a uniform depth at the rate of 43 MPa. The soil density is 1.85 kN/m³, load factor = 1.0. The spacing between the piles is 6.05 m. There are 9 piles in the group arranged in a square pattern. Efficiency of the group as per the Compressive laboratory formula is:
   a) 377.4
   b) 397.8
   c) 393.5
   d) 398.8

No, the answer is incorrect.

Assessed by:
1 point

6. A 100 mm diameter, 11.8 m long piles are driven as a normally consolidated clay layer with a depth of 5 m. The soil density is 1.85 kN/m³ and load factor = 1.0. The spacing between the piles is 6.05 m. There are 9 piles in the group arranged in a square pattern. Efficiency of the group as per the Compressive laboratory formula is:
   a) 0.34
   b) 0.67
   c) 0.79
   d) 1.0

No, the answer is incorrect.

Assessed by:
1 point

7. A 100 mm diameter, 12.0 m long piles are used as foundations for a column in a uniform depth at the rate of 43 MPa. The soil density is 1.85 kN/m³, load factor = 1.0. The spacing between the piles is 6.05 m. There are 9 piles in the group arranged in a square pattern. Efficiency of the group as per the Compressive Laboratory formula is:
   a) 0.34
   b) 0.67
   c) 0.79
   d) 1.0

No, the answer is incorrect.

Assessed by:
1 point

8. The capacity of the group of piles of 0.5 m in diameter with individual action with factor of safety of 3.0 (in kN) is:
   a) 187.43
   b) 388.97
   c) 519.82
   d) 471.81

No, the answer is incorrect.

Assessed by:
1 point

9. The capacity of the group of piles of 0.5 m in diameter with individual action with factor of safety of 3.0 (in kN) is:
   a) 174.98
   b) 505.98
   c) 758.15
   d) 816.98

No, the answer is incorrect.

Assessed by:
1 point

10. A group of piles, 3.0 m in length and 100 mm in diameter, is to be arranged in a square pattern in the soil with an average undrained compressive strength of 850 kPa. Assuming load factor = 1.0 and spacing sufficiently large so that efficiency is 100%, the ultimate capacity of the group spanning by insurance (in kN) is:
   (a) 2200.42
   (b) 2275.04
   (c) 2343.87
   (d) 3275.90

No, the answer is incorrect.

Assessed by: 1 point