Assignment 1

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

1) The foundations are sub-structural elements which transfers the structural load to the earth such that:
   - The soil is not overstepped
   - The soil is not subjected to excessive settlement
   - Both A and B
   - Either A or B
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Both A and B

2) In past earthquakes, it has been that the foundation failed due to liquefaction of supporting soil because:
   - Liquefaction lead to bearing capacity failure
   - Liquefaction lead to excessive settlement
   - Both A and B
   - None of the above
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Both A and B

3) Allowable bearing pressure of a foundation on cohesive soil is usually governed by:
   - Settlement criteria
   - Allowable bearing pressure criteria
   - Both bearing pressure and settlement criteria
   - Difficult to predict
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   All of the above

4) There are three principal modes of soil failure in shallow foundations. In which failure mode, there is poorly defined shear planes and no bulging of the ground surface adjacent to footing:
   - Punching Sh Allowable bearing pressure of a foundation on cohesive soil is usually governed by:
   - Local Sh Allowable bearing pressure criteria
   - General Sh Allowable bearing pressure criteria
   - None of the above
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Punching Sh Allowable bearing pressure of a foundation on cohesive soil is usually governed by:

5) In a construction site, dense sand is up to 5 m depth followed by rock. Which type of foundation shall be the first choice for the medium loads:
   - Spread foundation
   - Deep foundation such as pile foundation
   - Rell foundation
   - None of the above
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Spread foundation

6) In a shallow foundation, the water table is just at the base of the footing. Which form of the ultimate bearing capacity is affected due to water table:
   - Term with cohesion
   - Term with Surtcharge
   - Term with weight of soil
   - Both B and C
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Term with weight of soil

7) Which of the following statement is correct:
   - In inorganic soils, immediate settlement accounts virtually for the entire settlement
   - In organic soils, secondary compression accounts for most of the settlement
   - In granular soils, primary consolidation accounts for most of the settlement
   - In granular soils, secondary compression accounts most of the settlement
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Inorganic soil, secondary compression accounts for most of the settlement

8) Shallow foundations in a very soft clay subsoil are likely to fail in:
   - Punching Sh Allowable bearing pressure of a foundation on cohesive soil is usually governed by:
   - Local Sh Allowable bearing pressure criteria
   - General Sh Allowable bearing pressure criteria
   - None of the above
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   Punching Sh Allowable bearing pressure of a foundation on cohesive soil is usually governed by:

9) Nc, Nq, and Ny are dimensionless bearing capacity factors which depends on the angle of internal friction (v) of the soil:
   - All three factors increase with (a)
   - All three factors decrease with (a)
   - Some factors increase and Some factors decrease with (a)
   - Some factors increase and Some factors decrease with (a)
   No, the answer is incorrect.
   Score: 9
   Accepted Answers:
   All three factors increase with (a)

10) Which of the following statement is correct:
    - In granular soil differential settlement is much less than the total settlement
    - In clay soil differential settlement is much less than the total settlement
    - In clay soil differential settlement may be more to the total settlement
    - None of the above
    No, the answer is incorrect.
    Score: 9
    Accepted Answers:
    In clay soil differential settlement is much less than the total settlement