### Assignment 2

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment.

1. A combined footing needs to be designed under two columns loads. The column that is eccentric with respect to spread footing carries a higher load than the interior column for which enough space is available. Which type of footing will be most suitable?

   - Rectangular
   - Trapezoidal
   - Strip
   - Spread

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

2. Which of the following statement is correct with respect to a combined footing?

   - In a rectangular footing, the column that has limited space carries a larger load.
   - In a trapezoidal footing, the column that has limited space carries a smaller load.
   - In a rectangular footing, the column that has limited space carries a smaller load.
   - None of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   In a rectangular footing, the column that has limited space carries a larger load

3. A strip footing is most suitable when:

   - The distance between two columns is large and allowable soil pressure is relatively small.
   - The distance between two columns is large and allowable soil pressure is relatively large.
   - The distance between two columns is small and allowable soil pressure is relatively small.
   - The distance between two columns is small and allowable soil pressure is relatively large.

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   The distance between two columns is large and allowable soil pressure is relatively large

4. The important task in the analysis of a raft foundation is the determination of the distribution of contact pressure underneath the raft which is a complex function of the rigidity of the:

   - Soft soil
   - Supporting soil
   - Substructure
   - All of the above

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   All of the above

5. The conventional method of analysis of raft foundation is based on the assumption of linear distribution of contact pressure. The basic assumptions of this method are:

   - The foundation is rigid relative to the supporting soil
   - The contact pressure varies as assumed on the plane
   - Neither A nor B
   - Both A and B

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both A and B

6. The flat slab foundation (conventional) method of analysis of raft can be used if following condition is satisfied:

   - The structure behaves as a rigid (K > 0.5)
   - The column spacing is less than 1.75
   - Either the structure behaves as a rigid (K > 1.5), or the column spacing is less than 1.75.
   - Both the structure behaves as a rigid (K > 1.5), and the column spacing is less than 1.75.

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both the structure behaves as a rigid (K > 1.5), and the column spacing is less than 1.75.

7. The flexible foundation (simplified method) of analysis of raft can be used if following condition is satisfied:

   - The structure behaves as a flexible (K < 0.5)
   - The variation in adjacent column loads does not exceed 25% of higher value
   - Either of (A) or (B) is satisfied
   - Both (A) and (B) need to be satisfied

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both (A) and (B) need to be satisfied

8. A square footing of size 3 m x 3 m in plan and of depth 1.5 m is subjected to a vertical load 80 KN and moment 48 kNm. According to Mayhew (1963), the effective width of footing is:

   - 1 m
   - 2 m
   - 2.5 m
   - 1.5 m

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

9. Saran (1965) proposed a new method of designing eccentrically loaded footings. According to this, nondimensional bearing capacity factors $N_1$, $N_2$, and $N_3$ are function of:

   - $b$ only
   - $w$ only
   - Both $b$ and $w$
   - $b$, $w$, and $d$ (Slenderness ratio)

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both $b$ and $w$

10. In an eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used

11. To deal with eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used

12. To deal with eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used

13. To deal with eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used

14. To deal with eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used

15. To deal with eccentrically loaded footings, Prakash et al. (1978) suggested a methodology, according to this:

   - Reduced width shall be used
   - Reduced bearing capacity shall be used
   - Both reduced width and reduced bearing capacity shall be used
   - No reduction in width or in terms of bearing capacity factors is required

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   Both reduced width and reduced bearing capacity factors shall be used