

1. A pile foundation is used when
  - a) The loads are heavy
  - b) The soil stratum near ground surface is weak
  - c) Both (a) and (b).
  - d) Neither (a) nor (b) Ans: c
2. The load carrying capacity of a pile depends upon the
  - a) Skin friction
  - b) Point resistance
  - c) Both (a) and (b)
  - d) Neither (a) nor (b) Ans: c
3. The negative skin friction on a pile develops when
  - a) The soil in which it is driven is sandy soil
  - b) The soil surrounding it settles more than the pile
  - c) The ground water table rises
  - d) The soil near the tip is clay. Ans: b
4. The load carrying capacity of a bored pile in sand is about.....times that of a driven pile.
  - a)  $\frac{1}{2}$  to  $\frac{2}{3}$
  - b)  $\frac{2}{3}$  to  $\frac{3}{4}$
  - c)  $\frac{3}{4}$  to 1.25
  - d) More than 1.25 Ans: a
5. A 30cm diameter pile is driven 10m into a homogeneous consolidated clay deposit. The safe load when the factor of safety is 2.50, unit cohesion is 40kN/m<sup>2</sup> and adhesion factor is 0.7.
  - a) 150.8 kN
  - b) 105.6 kN
  - c) 215.4 kN
  - d) 211.2 kN Ans: b
6. Based on the function, piles can be classified into\_\_\_\_\_ types.
  - a) 4
  - b) 6
  - c) 8
  - d) 3 Ans: c
7. Which of the following piles is used to compact loose granular soil?
  - a) Friction piles

b) End bearing piles

c) Compaction piles

d) Tension piles

Ans: c

8. The piles that are used for protecting structures from ships and floating object is\_\_\_\_\_

a) Anchor piles

b) Fender piles

c) Compaction piles

d) Batter piles

Ans: b

9. Cast-in-situ piles may be classified in to\_\_\_\_\_classes.

a) 3

b) 8

c) 2

d) 4

Ans: c

10. The maximum load which can be carried by a pile is defined as its\_\_\_\_\_

a) Ultimate load carrying capacity

b) Ultimate bearing resistance

c) Ultimate bearing capacity

d) All of the mentioned

Ans: d