

C 28732

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Name.....

Reg. No.....

**SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE  
EXAMINATION, JUNE 2012**

CE 04 604—GEOTECHNICAL ENGINEERING—II

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

**Part A**

1. Discuss the effects of water table on bearing capacity.
2. List out the circumstances for which a pile foundation becomes necessary.
3. Differentiate between line loads and strip loads.
4. Write a short note on pressure bulb.
5. Write a short note on functions of footing.
6. Enlist the factors to be considered in selecting the right type of foundation.
7. Write a short note on uses of piles.
8. Explain in detail negative skin friction.

(8 × 5 = 40 marks)

**Part B**

9. (a) Write short notes on the following : (i) Terzaghi's equation for bearing capacity ;  
(ii) Disturbed and undisturbed samples.  
*Or*  
(b) Write short notes on the following: (i) SPT N-value ; (ii) Objectives of site investigation and soil exploration.
10. (a) Write short notes on the following ; (i) Limitations in settlement computation ; (ii) Immediate and consolidation settlement.  
*Or*  
(b) Write short notes on Newmark's chart. Also explain in detail the various causes of settlement.
11. (a) Write short notes on the following : (i) Floating foundation (ii) shallow and deep foundations.  
*Or*  
(b) Discuss in detail the various types of foundations with the help of sketches.

**Turn over**