

## **ASSIGNMENT : 1 SELECTION OF FOUNDATION AND SUB-SOIL EXPLORATION**

1. Explain the objectives of subsurface exploration.
2. What are the methods available for sub-surface exploration? Explain any one in detail.
3. Explain the factors that effect the selection of type of foundation.
4. State different types of shallow foundation. Explain any one with neat sketch.
5. What do you understand by site investigation? Discuss the preliminary steps involved in site investigation.
6. Explain the objectives of subsurface explorations.
7. Describe the standard penetration test. How the observed N-value is corrected?
8. Describe salient features of a good sub soil investigation report.
9. Compute the area ration of a thin walled tube sampler having an external diameter 90 mm and thickness 2mm.
10. The field N-value in a deposit of fully submerged fine sand was 40 at a depth of 6m. The average Saturated unit weight of the soil is 19 kN/m<sup>3</sup>. Calculate the corrected N value as per IS: 2231-1981.