



Uva Wellassa University, Sri Lanka
End Semester Examination – March 2012



MRT 331-3 Applied Geophysics and Engineering Geology

Duration : Three (03) hours

Part-A: Two (02) hours | Part-B: One (01) hour

Provide your answers on a separate answer book

Total three (03) Questions

Answer all questions

Part-B

1. Answer **either** "a" **or** "b"
 - a) With the aid of appropriate diagrams where necessary, answer the following.
 - i. Briefly describe the experimental procedure of soil classification based on particle size.
 - ii. Explain in brief, the important parameters and information to be obtained from grading curve.
 - iii. Briefly explain what soil consistency is. How is soil consistency determined for a given sample of soil?
 - b) Briefly explain the following;
 - i. Effective stress concept
 - ii. Standard Penetration Test
 - iii. Laboratory tests for measuring shear strength of soil
2.
 - a) Describe various techniques used for sub-surface investigations.
 - b) List the various information to be gathered during these site investigations.
 - c) Comment on the accuracy and the reliability of these investigations/tests.
3.
 - a) Giving suitable examples, describe various ground improvement techniques you have learnt.
 - b) Describe the necessary equipment and the methodology for Standard Proctor Compaction Test.
 - c) How would you determine the degree of compaction?