

國立成功大學

115學年度碩士班招生考試試題

編 號： 76

系 所： 土木工程學系

科 目： 土壤力學

日 期： 0203

節 次： 第 2 節

注 意： 1. 可使用計算機
2. 請於答案卷(卡)作答，於
試題上作答，不予計分。

***Please answer each question clearly and in sufficient detail, in either Chinese or English, to receive full credit.**

1. Explain the following technical terms:

- (a) Consolidation, Over-consolidated soil, and Normally Consolidated soil. (15%)
- (b) Compaction and Over-compaction. (10%)
- (c) Seepage and Discharge Velocity. (10%)
- (d) Permeability and Hydraulic Conductivity (10%)
- (e) Void ratio and Porosity. (10%)

2. Explain the differences between UU, CU, and CD triaxial tests with respect to drainage conditions during consolidation and shearing, and state the type of shear strength parameters obtained from each test. (25%)

3. Explain why shear strength, rather than compressive strength, is used to describe and analyze soil behavior in soil mechanics. (20%)