

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

For full credits, explain in detail the followings:

- 1) Time-deformation plot during consolidation (include names of the consolidation types). [15%]

- 2) Definition of OC and NC clays. [15%]

- 3) CD, CU, and UU (at least 2 advantages and 2 disadvantages for each of them, and briefly explain why). [15%]

- 4) List 2 advantages and 2 disadvantages of a Direct Shear Test, and briefly explain why. [15%]

- 5) Write the Mohr-Coulomb failure equation and definitions of each term [15%]

- 6) Equation for Compaction Effort is: $E = (W_h * H * N_L * N_b) / V_m$. What are W_h , H , N_L , N_b , V_m ? [15%]

- 7) Draw a schematic of a Constant Head Permeability Test [10%]