

國立成功大學

115學年度碩士班招生考試試題

編 號： 63

系 所： 資源工程學系

科 目： 資源循環工程

日 期： 0204

節 次： 第 3 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。

1. The definition of terms : (a) Locking Factor (b) Elutriation (c) Ratio of concentration (d) Cylindrical mills (e) Sphericity. (15%)
2. The purpose of sizing? The definition of particle size? What is major sizing techniques in industry? What is the definition of meshes and standard sieve? (15%)
3. Please elaborate more about three major comminution theories, their energy consumed and suggest operation condition? (15%)
4. Please draw the schematic diagram and explain double layer and zeta potential. (10%)
5. Minerals fall into one of three magnetic properties: ferromagnetic, paramagnetic and diamagnetic. Please explain ferromagnetic, paramagnetic and diamagnetic and how to use the differences in the magnetic properties to separate magnetite, hematite and gangue? (10%)
6. In flotation operations, please list five major modifiers, and give one example of chemical to describe their usage in five categories? (15%)
7. What is the mechanism of eddy current separation? What kind of function of material is related to the magnitude of current? Please give three examples of material. (10%)
8. Describe three main controlling factor of shaking table in detail. (10%)