

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

1. The definition of terms: (a) Degree of Liberation (b) Electrical double layer (c) Principle of Area (d) Flowing Film Concentration (e) Ferro-magnetism. (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. What is natural floatability and give five examples of naturally floatable minerals? (10%)
4. Please describe or illustrate the mechanism of jig and their operation cycle? (10%)
5. Please describe the grinding circuit and derive the circulation ratio through mass balance. (10%)
6. What is advantage and disadvantage of rod mill? Please explain the differences of size distribution between ball mill and rod mill. (10%)
7. In flotation operations, please list five major modifiers, and give one example of chemical to describe their usage in five categories? (15%)
8. 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. (15%)