

淡江大學九十二學年度碩士班招生考試試題

系別：機械與機電工程學系

科目：機 械 製 造

准帶項目請打「○」否則打「×」
簡單型計算機
X

本試題共 / 頁

1. Explain the following terms: (20%)
 - (1) strain hardening
 - (2) piezoelectric effect
 - (3) chills
 - (4) stereolithography
2. Describe the difference between brittle and ductile fracture. (8%)
3. List the advantages and limitations of die casting. (7%)
4. Why are drafts necessary in some molds? (7%)
5. Why is roller leveling necessary? (7%)
6. Explain the difference between open-die and impression-die forging. (7%)
7. What is the difference between direct and reverse extrusion? (7%)
8. What is the difference between average normal anisotropy and planar anisotropy? (8%)
9. Describe briefly the production steps involved in making powder-metallurgy parts. (7%)
10. Explain the term "machinability" and what it involves. Why does titanium have poor machinability? (7%)
11. What are the capabilities of wire EDM? Could this process be used to make tapered pieces? Explain. (8%)
12. Why is silicon the semiconductor most used in IC technology? (7%)