

淡江大學 100 學年度碩士班招生考試試題 50

系別：機械與機電工程學系 科目：機 械 製 造

考試日期：2 月 28 日(星期一) 第 2 節

本試題共 10 大題， 1 頁

1. Define anisotropy. What is its significance? (10%)
2. Describe the difference between deformation rate and strain rate. What unit does each one have? (10%)
3. How is fluidity defined? Why is it important? (10%)
4. Describe the differences between expendable and permanent molds. (10%)
5. Why is the surface finish of a rolled product better in cold rolling than in hot rolling? (10%)
6. What type of parts can be produced by rotary swaging? (10%)
7. What types of defects may occur in (a) extrusion and (b) drawing? (10%)
8. List the properties of materials that influence spring-back. Explain why and how they do so. (10%)
9. What is mechanical alloying? What are its advantages over the conventional alloying of metals? (10%)
10. What is virtual prototyping, and how does it differ from additive methods? (10%)