

淡江大學 95 學年度碩士班招生考試試題

65

系別：機械與機電工程學系

科目：機 械 製 造

准帶項目請打「Y」	
	簡單型計算機

本試題共 1 頁

1. Answer the following questions in brief (6 points for each question)
 - a. Explain concurrent engineering.
 - b. Explain LIGA process
 - c. Explain the working principle of rapid prototyping
 - d. Explain diffusion bonding/superplastic forming process
 - e. Explain friction welding process
2. Describe the differences between physical vapor deposition and chemical vapor deposition?(10 points)
3. How is ion-beam mixing different from ion implantation? (10 points)
4. Give a step-by-step procedure for the investment casting and describe some of the process advantages of centrifugal casting? (10 points)
5. How is electroless plating different from electroless composite plating? (10 points)
6. Explain the working principles of electric discharge machining and electrochemical machining schematically. (10 points)
7. What types of defects or product features can be detected by liquid penetrant inspection and eddy-current inspection? (10 points)
8. How is electropolishing different from electroplating? (10 points)