

# 國立虎尾科技大學 102 學年度第一學期博士班資格考試題

所別：機械與機電工程研究所

第 1 頁 共 1 頁

科目：機械製造

注意事項：

(1) 本試題共有 7 題，合計一百分。

(2) 請依序作答於答案卷上並註明題號，若未註明選答題號及超過規定題數時，謹採計作答順序較前之題目計分。

(3) 禁止使用計算機

1. How do the three concepts of ductility, toughness, and impact toughness compare, and from which tests do they result?(15%)
2. Name and explain imperfections in crystals. (15%)
3. Express the relationship between tensile yield strength and grain size. (15%)
4. What are the four basic powder metallurgy operations? (15%)
5. What are unilateral and bilateral tolerancing? (10%)
6. Why do edges need to be prepared in welding? What does edge preparation mean? (15%)
7. What are the factors to be considered during the selection of a pattern material? (15%)