

國立雲林科技大學資訊管理系  
109 學年度第 1 學期博士班資格考  
科目：管理計量方法

**(Quantitative Methods for Management)**

**時間：4 hours (Closed book)**

**作答時，請注意各題之比例配分，並清楚標示題號**

**Part A: 50%**

1. Please explain the differences and similarities between multiple regression and structure equation modelling (10%)
2. Please describe the nonparametric test method when your data are nominal or ordinal data (10%)
3. Explain the difference between the univariate ANOVA and the multivariate MANOVA. (10%)
4. Define cluster analysis, and write out its roles and its limitations. (10%)
5. Please write out the advantages, disadvantages, and limitations of Correspondence Analysis. (10%)

**Part B:50%**

6. Please explain the basic concept of factor analysis, and compare its analytic capability with discriminant analysis. (15%)
7. Please discuss the differences and similarities between principal component analysis and factor analysis. (15%)
8. The application of structure equation modelling includes the measurement model and structural model. Please describe their assumptions and principles. (20%)