

淡江大學 96 學年度碩士班招生考試試題

系別：資訊與圖書館學系

科目：統計學

准帶項目請打「V」

簡單型計算機

本試題共 1 頁

本試題一共七題，滿分為 100 分

1 How is the standard error of the mean affected by increasing the sample size from 100 to 1600? (10 分)

2. 解釋名詞:

2.1 statistics(10 分) 2.2 variation(10 分) 2.3 經驗法則(10 分)

3 Suppose that an economist wanted to use the yearly rate of productivity growth in the Taiwan (X) to predict the percentage change in the Taiwan Stock Market Index (Y).

A regression model was fit with the following results:

$$\hat{Y} = -200 + 3X_i$$

3.1 What is the interpretation of this model? (10 分)

3.2 If the productivity growth rate is double of the last year, how about the Stock Market Index? (10 分)

4. 將下列資料以枝葉圖表示。(10 分)

10.2	10.7	14.2
12.5	13.6	10.8
14.9	10.5	12.5

5 組資料如左，求其最大值、 $\sum_{i=1}^n (x_i - \bar{x})^2$ ，平均數，全距及標準差。(10 分)

8000	900	800	8100	910	9500	8500	7500	8500	9200
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6. If a researcher rejects a true null hypothesis, what kind of an error has she made? (10 分)

7 何謂 cluster 抽樣? (10 分)

(試題結束)