

國立中央大學97學年度碩士班考試入學試題卷

所別：人力資源管理研究所碩士班 科目：經濟學與統計學 共二頁 第 一 頁

*請在試卷答案卷(卡)內作答

統計學部分(50%)

注意事項：

1. 參與本試卷考生，不得攜帶任何計算機及相關電子輔助計算之工具進入試場應試。
2. 應試時，不用將題目寫在答案紙上。

壹、簡答題 (30%)

1. 中央極限定律 (Central limit theorem)
2. 信賴區間 (confidence interval)
3. 等分散性 (homoscedasticity)
4. 交互作用 (interaction effects)
5. 單尾檢定 (one-tailed test)
6. 非參數方法 (nonparametric methods)

參考用

貳、選擇題 (20%)

1. When all variables are standardized using the Z-scale, the regression coefficients for the m predictor variables are:
(1) equal (2) beta weights (3) equal to raw-score regression coefficients (4) parameters
2. If variable Y is predicted from variable X and the resulting residuals are correlated with variable Z, this correlation is a
(1) part correlation (2) partial correlation (3) multiple correlation (4) stepwise multiple regression
3. The t-statistic is used to test $H_0: \mu = k$ when _____ is not known.
(1) n (2) \bar{X} (3) σ (4) α
4. If H_0 is true but has been rejected, what type of error has been made?
(1) Type I error (2) Type II error (3) Type III error (4) no error.
5. In which of these situations would be a directional alternative hypothesis about ρ be reasonable?
(1) male-female and popularity among high-school students
(2) IQ and number of languages spoken
(3) Performance in entrance exam and prior school achievement
(4) Personal traits and sports preference

注：背面有試題

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6. If most students in the statistics class has read the book so carefully that they knew the answers to almost all questions on the mastery test, the scores would be expected to be
(1) normally distributed (2) bimodal (3) skewed negatively (4) skewed positively
7. One study on heart attacks reported that persons who attend church regularly had a lower risk of heart attacks than nonchurchgoers. Assuming the information is valid, which one of the following statements is correct?
(1) If you start attending church more regularly, your chances of a heart attach are certain to be reduced.
(2) There is definitely no causal relationship between the two variables.
(3) If you are a regular churchgoer, you are less likely to have a heart attach than if you are a nonchurchgoer.
(4) The correlation provides definitive information pertaining to causation.
8. Which term least belongs with other three?
(1) percentile (2) correlation (3) regression (4) prediction
9. An experimenter wishes to have subjects learn a list of paired association in all possible orders of the six pairs. Each subject can learn the list only once. How may subjects would be required if a different subject is required for every possible ordering of the six pairs?
(1) 720 (2) 60 (3) 600 (4) 72
10. Which of the options are statistical hypotheses associated with testing for a differences in means?
(1) $H_0: \mu = 100$ (2) $H_0: \mu_1 = \mu_2$ (3) $H_0: \bar{X}_1 = \bar{X}_2$ (4) none of above

經濟學部分(50%)

1. (10%)
(a) 什麼是價格彈性？什麼是所得彈性？(5%)
(b) 他們在企業經營政策擬訂時有何用處？請舉例說明之。(5%)
2. (20%)
(a) 什麼是固定成本？變動成本？邊際成本？請各舉二個實例說明之。(6%)
(b) 請說明後三個成本之間有何關係？(6%)
(c) 請說明這些概念對你日常生活有何意義？請舉例說明 (8%)
3. 什麼是規模經濟？什麼是範疇經濟？請說明這些概念對你日常生活有何意義？請舉實例說明之。(10%)
4. 什麼是需求法則？最近各大學都在提升學雜費，請問大學的學雜費與需求法則有何關係？學雜費的提升對大學生的人數是增加？不變？還是減少？請說明。(10%)

參考用

注意：背面有試題