淡江大學九十四學年度轉學生招生考試試題

系別：統計學系三年級　　　科目：統　計　學

准帶項目請打「∨」
∨　簡單型計算機

節次：7 月 13 日第 1 節

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注意：請將所有答案答於**答案紙**上，以避免影響成績。

一、選擇題 20分(每題 5 分)

1. The least squares method in linear regression problems minimizes which of the following?
   (a) SSR　　　(b) SSE　　　(c) SST　　　(d) All of the above

2. 若虛無假設 H_0 為『新發行的藥不會增加血壓急速上升的狀況』則下列何者的選擇較合適？
   (a) $\alpha = 0.001$ 且 $\beta = 0.1$　　　(b) $\alpha = 0.01$ 且 $\beta = 0.05$　　　(c) $\alpha = 0.05$ 且 $\beta = 0.01$
   (d) $\alpha = 0.1$ 且 $\beta = 0.001$　　　(e) $\alpha = 0.05$ 且 $\beta = 0.05$

3. In a left-skewed distribution
   (a) the median equals the mean.　　　(b) the median is less than the mean.
   (c) the median is greater than the mean.　　　(d) none of the above.

4. The p-value criterion for hypothesis testing is to reject the null hypothesis if:
   (a) p-value $= \alpha$　　　(b) p-value $< \alpha$
   (c) p-value $> \alpha$　　　(d) $-\alpha < p$-value $< \alpha$

二、填充題 10分(每題 5 分)

1. If two events are mutually exclusive, what is the probability that both occur at the same time?

2. Which of the following is a continuous quantitative variable? Please write down your answers.
   A. the color of a student's eyes
   B. the temperature of the water
   C. the number of employees of an insurance company
   D. the amount of milk produced by a cow in one 24-hour period.
   E. the number of gallons of milk sold at the local grocery store yesterday.

注意：下頁還有試題！

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