

系所組別：教育研究所

考試科目：社會科學研究法

考試日期：0222，節次：1

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

Question 1 (10 points).

In 1987, Shere Hite published a best-selling book called "Women and Love."

The author distributed 100,000 questionnaires through various women's groups, asking questions about love, sex, and relations between women and men.

She based her book on the 4,500 responses that were returned.

One question on divorce estimated that 91% of those women who were divorced said that they had initiated the divorce. One reviewer of the book said she did not believe so high an estimate and called Hite's book "Social science fiction."

Why is that? Explain briefly.

Question 2 (10 points).

A survey organization wants to take a simple random sample to estimate the percentage of residents of Tainan who have seen a certain television program.

To keep the costs down, they want to take as small a sample as possible.

But their client will only tolerate chance errors of one percentage point or so in the estimate. Should they use a sample size of 100, 2,500 or 10,000?

(Previous polls suggest that the population percentage is about 40%.)

Question 3 (10 points).

Jolin is taking a Statistics course with you at National Cheng Kung University.

She is trying to convince you that if two variables X and Y have a correlation coefficient of 0.7 and that the variables Y and Z also have a correlation coefficient of 0.7, then it must be the case that the correlation coefficient is 0.49 for the variables X and Z .

Another classmate, Janet, says that it can't be right.

The correlation coefficient for the variables X and Z should still be 0.7.

Who is right? Or are they both wrong? Explain your reasoning briefly.

Question 4 (10 points).

Debbie tosses a fair coin 500 times. After each 100 tosses, she computes the total percentage of heads since the first toss. Thus, if after 100 tosses

58 heads have come up, the percentage of heads in the first 100 tosses is 58%,

(背面仍有題目,請繼續作答)

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if after 200 tosses 110 heads have come up, the percentage of heads is 55%, etc.

In this way five numbers are collected: the percentage of heads in the first

100 tosses, the percentage of heads in the first 200 tosses,

and so on up to the percentage of heads in the first 500 tosses.

Here are four sequences of five percentages. Which one most closely resembles

the sequence of five percentages you might expect in Debbie experiment?

(a)	60%	42%	48%	56%	45%
(b)	55%	51%	49%	50%	51%
(c)	50%	50%	50%	50%	50%
(d)	45%	55%	46%	46%	57%

Question 5 (10 points).

Which of the following are true? Explain briefly.

(a) The standard deviation (SD) of a list of numbers cannot be greater than its average.

(b) If the SD of a list of numbers is zero, then the average must also be zero.

(c) If the SD of a list of numbers is zero, the median and the average are the same.

(d) If the histogram of a large, representative sample does not follow the normal curve, we can convert the raw score into standard scores (z-scores) and use the normal approximation for data this way.

(e) If the data don't follow the normal curve, you can't use the normal approximation to get confidence intervals for population averages.

Question 6 (20 points)

一個完整的研究論文寫作需包含哪五個章節？並請詳述每個章節所需涵蓋的內容。

Question 7 (15 points)

約翰為一名研究所碩二的學生，他發現近年青少年網路霸凌的事件層出不窮，因此有興趣針對此議題加以深入研究，以做為他碩士論文的題目。約翰請你提供他一些研究設計上的建議。請挑選一個質性研究法，針對青少年網路霸凌的議題，設計一個完整的質性研究，並詳細說明該計畫將如何進行。

Question 8 (15 points)

研究中涉及的研究倫理議題有哪些？研究者應如何處理這些議題？請列舉3項並詳加說明。