大葉大學96學年度轉學招生考試試題紙

學系	部別：日間部/第二部/進修學士班/四技	年級	考試科目（中文名稱）	考試日期	節次	備註 女二員
企業管理系	大學日間部 第二部	三	統計學	7月31日	4	可攜帶「不可程式之一般計算機」 P2-1

註：考生可否攜帶計算機或其他資料作答，請在備註欄註明（如未註明，一律不准攜帶）。 13:30 ~ 14:50

本試卷共有25題，每題4分，每題有4個備選答案，請選出一個正確答案，答錯不倒扣。
（請依題號於答案卡上畫記作答）(100%)

1. Quantitative data
   A. are always nonnumeric
   B. may be either numeric or nonnumeric
   C. are always numeric
   D. None of these alternatives is correct.

2. A histogram is said to be skewed to the left if it has a
   A. longer tail to the right
   B. shorter tail to the right
   C. shorter tail to the left
   D. longer tail to the left

3. Which of the following is a measure of dispersion?
   A. percentiles
   B. quartiles
   C. interquartile range
   D. all of the above are measures of dispersion

4. The value which has half of the observations above it and half the observations below it is called the
   A. range
   B. median
   C. mean
   D. mode

5. The coefficient of variation is
   A. the same as the variance
   B. the standard deviation divided by the mean times 100
   C. the square of the standard deviation
   D. the mean divided by the standard deviation

6. The variance can never be
   A. zero
   B. larger than the standard deviation
   C. negative
   D. smaller than the standard deviation

7. Since the sun **must** rise tomorrow, then the probability of the sun rising tomorrow is
   A. much larger than one
   B. zero
   C. infinity
   D. None of these alternatives is correct.

8. If A and B are mutually exclusive events with $P(A) = 0.3$ and $P(B) = 0.5$, then $P(A \cup B) =$
   A. 0.00
   B. 0.15
   C. 0.8
   D. 0.2

9. When sampling without replacement, the probability of obtaining a certain sample is best given by a
   A. hypergeometric distribution
   B. binomial distribution
   C. Poisson distribution
   D. normal distribution

10. The binomial probability distribution is used with
   A. a continuous random variable
   B. a discrete random variable
   C. any distribution, as long as it is not normal
   D. None of these alternatives is correct.

11. Which of the following is **not** a characteristic of the normal probability distribution?
   A. The mean, median, and the mode are equal
   B. The mean of the distribution can be negative, zero, or positive
   C. The distribution is symmetrical
   D. The standard deviation must be 1

12. Larger values of the standard deviation result in a normal curve that is
   A. shifted to the right
   B. shifted to the left
   C. narrower and more peaked
   D. wider and flatter

13. The point estimator with the smaller variance is said to have
   A. smaller relative efficiency
   B. greater relative efficiency
   C. smaller relative consistency
   D. greater relative consistency

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企業管理系	大學日間部 第二部	三	統計學	7月31日	4	可攜帶「不可程式之一般計算機」 P2-2

註：考生可否攜帶計算機或其他資料作答，請在備註欄註明（如未註明，一律不准攜帶）。

14. As the sample size increases, the
    A. standard deviation of the population decreases
    B. population mean increases
    C. standard error of the mean decreases
    D. standard error of the mean increases

15. Whenever the population standard deviation is **unknown** and the population has a normal or near-normal distribution, which distribution is used in developing an interval estimation?
    A. standard distribution
    B. z distribution
    C. alpha distribution
    D. t distribution

16. The level of significance in hypothesis testing is the probability of
    A. accepting a true null hypothesis
    B. accepting a false null hypothesis
    C. rejecting a true null hypothesis
    D. None of these alternatives is correct.

17. If a hypothesis test leads to the rejection of the null hypothesis
    A. a Type II error must have been committed
    B. a Type II error may have been committed
    C. a Type I error must have been committed
    D. a Type I error may have been committed

18. Independent simple random samples are taken to test the difference between the means of two populations whose standard deviations are not known. The sample sizes are $n_1 = 25$ and $n_2 = 35$. The correct distribution to use is the
    A. Poisson distribution
    B. t distribution with 60 degrees of freedom
    C. t distribution with 59 degrees of freedom
    D. t distribution with 58 degrees of freedom

19. The sampling distribution used when making inferences about a single population's variance is
    A. an F distribution
    B. a t distribution
    C. a chi-square distribution
    D. a normal distribution

20. The number of times each experimental condition is observed in a factorial design is known as
    A. partition
    B. replication
    C. experimental condition
    D. factor

21. An ANOVA procedure is applied to data obtained from 6 samples where each sample contains 20 observations. The degrees of freedom for the critical value of F are
    A. 6 numerator and 20 denominator degrees of freedom
    B. 5 numerator and 20 denominator degrees of freedom
    C. 5 numerator and 114 denominator degrees of freedom
    D. 6 numerator and 20 denominator degrees of freedom

22. The variable of interest in an ANOVA procedure is called
    A. a partition
    B. a treatment
    C. either a partition or a treatment
    D. a factor

23. In a regression and correlation analysis if $r^2 = 1$, then
    A. SSE = SST
    B. SSE = 1
    C. SSR = SSE
    D. SSR = SST

24. In a regression analysis if SSE = 200 and SSR = 300, then the coefficient of determination is
    A. 0.6667
    B. 0.6000
    C. 0.4000
    D. 1.5000

25. A regression analysis between sales (Y in $1000) and price (X in dollars) resulted in the following equation

$$\hat{Y}_i = 50{,}000 - 8X_i$$

The above equation implies that an
    A. increase of $1 in price is associated with a decrease of $8 in sales
    B. increase of $8 in price is associated with an increase of $8,000 in sales
    C. increase of $1 in price is associated with a decrease of $42,000 in sales
    D. increase of $1 in price is associated with a decrease of $8000 in sales