

تعداد سؤال: ۲۵ تکمیلی - تشریحی ۲

نام درس: زبان تخصصی

رشته تحصیلی: گرایش: آمار

کد درس: ۲۵۰۱۳۷

زمان امتحان: تستی و تکمیلی ۶۰ دقیقه تشریحی ۳۰ دقیقه

[ استفاده از فرهنگ لغات مجاز نیست ☆ سوالات تستی نمره منفی دارد ]

تعداد کل صفحات: ۴

نیمسال دوم ۸۲-۸۳

**A. Write the meaning of the following words in English.**

1. observation
2. calculation
3. factor
4. hypothesis
5. grand mean
6. proportion
7. level of significance
8. Spearman's  $r_s$
9. variability
10. rank

**B. Choose the correct item (a, b, c or d) for each sentence.**

1. Add up the number and divide by number of numbers is a .....
  - a. descriptive statistic
  - b. inferential statistic
  - c. deductive
  - d. induction
2. A recent development in today's statistics is the emphasis placed on ..... making.
  - a. decision
  - b. inference
  - c. mathematic
  - d. history
3. The two terms, ..... and ..... can be used interchangeably.
  - a. mean / variance
  - b. inferential statistics / inductive statistics
  - c. mean / mode
  - d. quantitative variables / qualitative variables
4. How many scales of measurement did Stevenen identify?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
5. What is the scale used for qualitative variables?
  - a. nominal
  - b. ordinal
  - c. interval
  - d. ratio
6. The number of observations falling into each interval is .....
  - a. class frequency
  - b. frequency
  - c. sample size
  - d. class interval

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7. Raw data are arranged and listed in a meaningless fashion. The mean of "fashion" is .....

- a. new                      b. again                      c. method                      d. view

8. What are useful in describing different levels of variable of interest?

- a. frequencies                      b. data organization  
c. raw data                      f. cumulative frequencies

9. What is not a median appropriate?

- a. ratio                      b. interval                      c. ordinal                      d. nominal

10. In open - ended category, you do not have a .....

- a. lower limit                      b. upper limit                      c. midpoint                      d. observation

11. In Formula  $Q_d = X_k + [(n+1)d - k] \left( \frac{X_{(n+1)d} - X_k}{n - k} \right)$  what is k?

- a. the greatest cumulative class frequency less than or equal to  $(n+1)d$   
b. equal to  $(n+1)d$   
c. number of the class intervals  
d. upper limit of the first interval

12. It equals the amount by which a number differ from an average or other comparable value.

- a. variance                      b. deviation                      c. standard deviation                      d. range

13. .... are used to compare two scores from different distributions, even when the scores are measuring different things.

- a. means                      b. variances                      c. z scores                      d. mode

14. A z score changes a raw score to show .....

- a. the highest possible score on a text.  
b. the relationship to its fellow scores.  
c. the difficulty of an exam.  
d. the respectability of a score.

15. The coefficient of variation relates variability in the sample or population to the .....

- a. mean                      b. date                      c. centre                      d. standard deviation

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نیمسال دوم ۸۲-۸۳

16. Which expression does the coefficient of skewness measure?

- a.  $\frac{\bar{x} - 3m}{s}$       b.  $\frac{s}{\bar{x} - m}$       c.  $\frac{s}{\bar{x}}$       d.  $\frac{3\bar{x} - 3m}{s}$

17. Any collection of outcomes of an experiment is .....

- a. select      b. sample space      c. event      d. occur

18. The probability for equally likely events .....

- a. needs experimentation      b. does not need experimentation  
c. can not be deducted      d. can be reduced directly

19. A three-digit numbers is formed from the digits 0, 1, 2, 3, 4, 5 with each digit used only once. How many such digits can be formed?

- a. 216      b. 180      c. 100      d. 125

20. Two events, A and B, are said to be ..... if and only if .....

- a. independent /  $P(A \cap B) = P(A).P(B)$   
b. occur / they have same sample space  
c. random variables / they have means  
d. two cases / they are segments

21. Denoting by k the number of Bernoulli process failures unit the r-th success.

- a. Geometric distribution      b. Binomial distribution  
c. Negative Binomial distribution      d. Poisson Distribution

22. The mean  $\mu$ , and the variance  $\sigma^2$ , two parameters completely specify the ..... and ..... of a normal curve.

- a. high / long      b. skew / kurists      c. shape / area      d. location / scale

23. Relatively far out from a certain point of centre.

- a. mean      b. outlier      c. overall      d. axis

24. What does not change, when we change the units of measurement of x, y, or both?

- a. covariance      b. variance      c. coefficient of variation      d. correlation

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نیمسال دوم ۸۲-۸۳

تعداد سوال: ۲۵ تکمیلی - تشریحی ۲

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25. Which method does find the regression line in your book?

- a. least square                      b. maximum likelihood  
c. moment                          d. a, b and c

**C. Translate the following text into Farsi**

1. A type II error (failing to recommend and improvement) would not cause much damage; farmers would just continue to do well (though not as well as they might).
2. Spearman's name is attached to the coefficient that is used to show the degree of correlation between two sets of ranked data. He used the Greek letter  $\rho$  as the symbol for his coefficient.