

جامعة صنعاء



## قائمة الاسئلة

امتحان نهاية الفصل الدراسي الأول - للعام الجامعي 1446 هـ - الموافق -2025/2024م-كلية الطب والعلوم الصحية :: طب مجتمع- طب

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- 1) All of the following are terms of Independent Variable except :
  - 1) Cause
  - 2) Risk Factor.
  - 3) Exposure
  - 4) + Effect.
- 2) The Student's t test is:
  - 1) + a parametric test.
  - 2) a nonparametric test.
  - 3) a test for comparing averages.
  - 4) a test for comparing variances.
- 3) Sample size calculation is not affected by:
  - 1) Population size.
  - 2) Expected prevalence of outcome or event of interest.
  - 3) Sample error for estimate.
  - 4) + Alternative hypothesis.
- 4) When independent variable causes increase or decrease in the dependent variable.
  - 1) One tailed hypothesis.
  - 2) Null hypothesis.
  - 3) Alternative hypothesis
  - 4) + Two tailed hypothesis.
- 5) When we are reasonably sure that there is something besides chance alone that gave us an observed sample.
  - 1) The p-value is greater than alpha.
  - 2) + The p-value is less than or equal to alpha.
  - 3) The p-value is less than alpha.
  - 4) The p-value is equal to alpha.
- 6) Non parametric equivalent of t-test for repeated measures:
  - 1) Mann whitney.
  - 2) Unpaired t-test.
  - 3) Paired t-test.
  - 4) + Wilcoxon test.
- 7) Which of the following test is used to assess the association between categorical variables?
  - 1) Correlation test.
  - 2) Z- test.
  - 3) T-test.
  - 4) + Chi square test.
- 8) A study finds that the risk of having a cold in the last three months is similar in smokers and non-smokers. This implies the odds-ratio in this study would be:
  - 1) Exactly equal to 1.
  - 2) + Close to 1.
  - 3) Close to 0.
  - 4) Exactly 0.
- 9) Relative Risk must always be:
  - 1) + Between 0 and infinity.
  - 2) Between 1 and infinity.
  - 3) Between O and 1.
  - 4) Between -1 and 1.







What is the area under standard normal distribution falls within +1 and -1? 10)

- 0.95 1)
- 2) + 0.68
- 0.99 3)
- 4) 0.5
- 11) Which of the following hypothesis states that there is no effect in the population of interest?
  - One tailed hypothesis. 1)
  - Null hypothesis. 2) +
  - Alternative hypothesis 3)
  - Two tailed hypothesis. 4)
- 12) Which of the following statistical terms refers to everyone in a specified target group ?
  - Parameter. 1)
  - 2) Population. +
  - Sample. 3)
  - Statistic. 4)
- 13) In statistical analysis, the burden of proof lies traditionally with:
  - The alternative hypothesis. 1) +
  - The null hypothesis. 2) -
  - 3) The analyst.
  - The facts 4)
- 14) Which of the following values is not typically used for alpha?
  - 0.01 1) \_
  - 2) 0.05
  - 3) 0.1 \_
  - + 0.25 4)
- 15) Smaller p-values indicate more evidence in support of:
  - The null hypothesis. 1)
  - 2) + The alternative hypothesis.
  - The quality of the researcher. 3) \_
  - Further testing. 4)
- 16) You conduct a hypothesis test and you observe values for the sample mean and sample standard deviation when n = 25 that do not lead to the rejection of H0. You calculate a p-value of 0.0667. What will happen to the p-value if you observe the same sample mean and standard deviation for a sample > 25?
  - 1) \_ Increase.
  - 2) +Decrease.
  - 3) Stay the same.
  - May either increase or decrease. 4)
- 17) What does the ANOVA mean?
  - Analysis of variables 1)
  - 2) + Analysis of variance
  - 3) Assisted Numerical Output Value Analysis
  - Auxiliary Numerical Output Value Analysis 4)
- 18) Which of the following risk ratio indicates that the risk of the outcome is exactly the same in the exposed and unexposed groups?
  - Risk ratios above 1 1)
  - + 2) Risk ratios equal 1
  - Risk ratios equal -1 3) -
  - Risk ratios less than 1 4)
- 19) Determining the sample interval (represented by k), randomly selecting a number between 1 and k, and







including each kth element in your sample are the steps for which form of sampling?

- 1) Simple Random Sampling
- 2) Stratified Random Sampling
- 3) + Systematic Sampling
- 4) Cluster sampling
- 20) What is the usual level of confidence interval used by researchers?
  - 1) 0.5
  - 2) 0.75
  - 3) \_\_\_\_\_0.9
  - 4) + 0.95
- 21) What is the significance of an odds ratio above 1?
  - 1) odds are equal in the exposed and unexposed group
  - 2) + odds are greater in the exposed than unexposed group
  - 3) odds are greater in the unexposed than exposed group
  - 4) odds are smaller in the exposed than unexposed group
- 22) Cohort study of back belts for preventing back injuries to determine the effectiveness of wearing back belts to prevent disabling low-back injuries at work. They interviewed 2939 material handlers who wore a back belt every work day. Within this group, 502 reported back injuries. They also interviewed 2601 material handling employees who chose not to wear a back belt. Among these employees, 455 reported back injuries.

What was the incidence of back injury among the workers who used back belts?

- 1) + 0.1708
- 2) 0.203
- (3) 0.1749
- 4) 0.3256
- 23) Cohort study of back belts for preventing back injuries to determine the effectiveness of wearing back belts to prevent disabling low-back injuries at work. They interviewed 2939 material handlers who wore a back belt every work day. Within this group, 502 reported back injuries. They also interviewed 2601 material handling employees who chose not to wear a back belt. Among these employees, 455 reported back injuries.

What was the incidence of back injury among the workers who did not use back belts?

1)	+	0.1749
2)	-	0.1708
3)	-	0.212
1)		0 2 (70

- 4) 0.3679
- 24) Cohort study of back belts for preventing back injuries to determine the effectiveness of wearing back belts to prevent disabling low-back injuries at work. They interviewed 2939 material handlers who wore a back belt every work day. Within this group, 502 reported back injuries. They also interviewed 2601 material handling employees who chose not to wear a back belt. Among these employees, 455 reported back injuries.







What is the relative risk of back injury associated with back belt use?

- 1) 1.024 2) + 0.98
- 3) 0.02987
- 4) 0.3457
- 25) Cohort study of back belts for preventing back injuries to determine the effectiveness of wearing back belts to prevent disabling low-back injuries at work. They interviewed 2939 material handlers who wore a back belt every work day. Within this group, 502 reported back injuries. They also interviewed 2601 material handling employees who chose not to wear a back belt. Among these employees, 455 reported back injuries.

Interpret the relative risk.

- 1) + Risks in the groups are about the same; no association between back belt use and back injuries occurrence.
- 2) Positive association, exposed group has higher incidence than non-exposed group.
- 3) Negative association or protective effect, non-exposed group has higher incidence.
- 4) None of the answers.
- 26) Suppose a company manufactures phones known to have a lifespan that follows a normal distribution with a mean of 5 years and a standard deviation of 6 months. Suppose 60 phones are taken randomly for the test, and the sample mean was found to be 6 years, apply the z score test :
  - 1) + Z scoie = 2
  - 2) Z score = -2
  - 3) Z score = 0.1666
  - 4) Z score = 1
- 27) Regarding Z score characteristics, all of the following are true except:
  - 1) Its standard deviation is always 1.
  - 2) + Average is always 50.
  - 3) It Ranges from -3 to 3
  - 4) Its standardization from population data.
- 28) Regarding bone density, when Z score is -1, this means :
  - 1) Bone density is higher than in others of the same age, sex, and body size.
  - 2) Bone density is the same as in others of the same age, sex, and body size.
  - 3) + Bone density is lower than in others of the same age, sex, and body size
  - 4) Doctors consider scores higher than this to be normal.
- 29) Z score to the right of mean is :
  - 1) \_\_\_\_ Not Unusual.
  - 2) + Positive Score.
  - 3) Negative score.
    - Unusual.
- 30) When the sample is the People who are available, volunteer, or can be easily collected, the sampling method called :
  - 1) Simple random sampling

4)





- 2) Cluster sampling
- 3) \_\_\_\_ Systematic sampling
- 4) + Convenience sampling
- 31) All of the following are Non- Probability Sampling except :
  - 1) Convenience sampling.
  - 2) + Cluster sampling.
  - 3) Purposive sampling.
  - 4) Snowball sampling
- 32) The way to minimize chance of sampling errors is to :
  - 1) Careful design of the sampling procedure.
  - 2) + Select a sufficiently large sample.
  - 3) Minimizing the Response errors
  - 4) Follow up
- 33) The investigator wants to determine the efficacy of new drug for hypercholesterolemia. So he has recorded the cholesterol level of 250 patients then he has given them the new drug then recorded their cholesterol after new drug administration. Data were not normally distributed. What is the suitable statistical test to be used in this study?
  - 1) Kruskal- Wallis test.
  - 2) + Wilcoxon signed-rank test.
  - 3) Spearman's rank correlation.
  - 4) Paired t Test.
- 34) Healthy people incorrectly identified as sick :
  - 1) True positive.
  - 2) + False positive.
  - 3) True negative.
  - 4) False negative.
- 35) When Few False Positives are existed:
  - 1) High Sensitivity.
  - 2) Low Specificity.
  - 3) Low Sensitivity.
  - 4) + High Specificity.
- 36) All of the following are true regarding H0 except:
  - 1) This is the hypothesis actually being tested
  - 2) Assumed to be true
  - 3) + Defined as the Alternative Hypothesis.
  - 4) Defined as the Null Hypothescalled
- 37) Classifying continuing educational experience into categories including "strongly agree," "agree," and
  - "disagree," is an example of which type of variable?
    - 1) quantitative continuous
    - 2) \_\_\_ quantitative discrete
  - 3) + qualitative ordinal
  - 4) qualitative nominal
- 38) If a series of values consists of 23 numbers, then, for finding the median, we ordered the series ascending and we use:
  - 1) The 11th value in the ordered series
  - 2) The mean between the 11th and 12th values
  - 3) The mean between the 12th and 13th values
  - 4) + The 12th value in the ordered series
- 39) Place of birth is example of :







- 1) quantitative continuous
- 2) quantitative discrete
- 3) \_\_\_ qualitative ordinal
- 4) + non the above
- 40) Can be achieved by multiply the relative frequency by 100%
  - 1) Cumulative frequency
  - 2) \_\_\_\_ Relative frequency
  - 3) + Percentage frequency
  - 4) Non of the above
- 41) Can be achieved by adding each frequency to the previous frequencies
  - 1) + Cumulative frequency
  - 2) Relative frequency
  - 3) Percentage frequency
  - 4) Non of the above
- 42) Blood group is example of :
  - 1) quantitative continuous
  - 2) quantitative discrete
  - 3) qualitative ordinal
  - 4) + qualitative nominal
- 43) Which of the following data represents quantitative continuous data?
  - 1) A number of cigarettes smoked per day by a person.
  - 2) A number of children in a household.
  - 3) + Height of children.
  - 4) Number of languages a person speaks.
- 44) It is the value that has the highest frequency in the data
  - 1) Mean
  - 2) <u>-</u> Median
  - 3) + Mode
  - 4) None the above
- 45) The most appropriate measure of central tendency for the values (2, 3, 6, and 100) is the
  - 1) <u>-</u> Mean
  - 2) + Median
  - 3) Mode
  - 4) None the above
- 46) Religion is example for
  - 1) Quantitative discrete
  - 2) Quantitative continuous
  - 3) qualitative ordinal
  - 4) + qualitative nominal
- 47) If the quantitative data are normally distributed which the following measures used to describe the data
  - 1) mean and interquartile range
  - 2) + mean and standerd deviation
  - 3) median and range
  - 4) median and interquartile range
- 48) Which the following measures can be used to describe the qualitative data
  - 1) mean and interquartile range
  - 2) median and interquartile range
  - 3) + numbers and percentage
  - 4) none the above







49) which of the following graphs can be used to represent the qualitative variables

- 1) A. pie chart
- 2) B.bar chart
- 3) \_- C.curve
- 4) + D.a&b

50) For the Standard deviation all the following are true except:

- 1) It is the square root of variance
- 2) \_\_\_\_\_ it depends on the mean in its calculation formula.
- 3) + It is one of the central tendency measurements
- 4) cannot be calculated for open end intervals data
- 51) Which one of the following variables is not qualitative?
  - 1) + Age of a person.
  - 2) Sex of a person
  - 3) Choice on a test item: true or false.
  - 4) Marital status of a person
- 52) The stages of a malignant disease (cancer) is recorded using the symbols 0, I, II, III, IV. We say that the scale used is:
  - 1) quantitative continuous
  - 2) \_\_\_ quantitative discrete
  - 3) + qualitative ordinal
  - 4) qualitative nominal
- 53) Vi The following data are the ages of 15 persons (54 22 32 59 36 27 29 92 43 35 20 39 26 32 63)

The mean of the age is

- 1) 40
- 2) + 40.6
- 3) 60.4
- 4) None the above
- 54) Vi The following data are the ages of 15 persons (54 22 32 59 36 27 29 92 43 35 20 39 26 32 63)

the median of the age is

- 1) 92
- 2) 36
- 3) + 35
- 4) 29
- 55) Vi The following data are the ages of 15 persons (54 22 32 59 36 27 29 92 43 35 20 39 26 32 63)

The mode of the age is

- 1) + 32
- 2) 23
- 3) 20
- 4) Non the above
- 56) Vi The following data are the ages of 15 persons (54 22 32 59 36 27 29 92 43 35 20 39 26 32 63)

The range is





- 1)
  - $\begin{array}{rrrrr} 1) & & 43 \\ 2) & & 20 \end{array}$
  - 2) 203) - 50
  - 4) + 72
- 57) The scores of Naplex for 10 students are (75, 82, 90, 92, 67, 95, 110, 80, 82, 86.) The Mean of the scores
  - 1) 83.6
  - 2) + 85.9
  - 3) 84.6
  - 4) 43
- 58) The scores of Naplex for 10 students are (75, 82, 90, 92, 67, 95, 110, 80, 82, 86.) The median is
  - 1) \_ 110
  - 2) + 84
  - 3) 82
  - 4) 67
- 59) The scores of Naplex for 10 students are (75, 82, 90, 92, 67, 95, 110, 80, 82, 86.) mode
  - 1) 75
  - 2) 90
  - 3) 86
  - 4) + 82
- 60) The scores of Naplex for 10 students are (75, 82, 90, 92, 67, 95, 110, 80, 82, 86.) The range of the scores is
  - 1) 42
  - 2) 44
  - 3) + 43
  - 4) 45