



Tanta Faculty of Medicine  
Dept. of Public Health & Community Medicine

**End Semester Biostatistics Exam. For the Doctorate Degree in Audiology  
(August. 2017) All questions should be attempted**

- 1- The methods used to determine something about a population on the basis of a sample is called :
  - a- Inferential statistics.
  - b- Descriptive statistics.
  - c- Applied statistics.
  - d- Theoretical statistics.
- 2- Which of the following measures is not sensitive to extreme values?
  - a- Median.
  - b- Mode.
  - c- Interquartile range.
  - d- All of the above.
- 3- If a data set is arranged and has an even number of observations, the median :
  - a- Can not be determined.
  - b- Is the average of the two middle values.
  - c- Is equal to the mean of all values.
  - a- Non of the above.
- 4- In a distribution with negative skewness :
  - a- Median is smaller than the mode.
  - b- Median is smaller than the mean.
  - c- Mean is larger than the mode.
  - d- Non of the above.
- 5- Listings of the data in the form in which these are collected are known as :
  - a- Secondary data.
  - b- Raw data.
  - c- Arrayed data.
  - d- Qualitative data
- 6- In random sampling, the probability of selecting an item from the population is :
  - a. Unknown.
  - b. Known.
  - c. One.
  - d. Zero.
- 7- The mean of a sample is :
  - a- Always equal to the mean of the population.
  - b- Always smaller than the mean of the population.
  - c- Computed by summing the data and dividing the sum by (n).
  - a- None of the above.
- 8- A set of all units of interest in a study is called :
  - a- Sample.
  - b- Population.
  - c- Parameter.
  - d- Statistic.

**9- Data that are collected by any body for some specific purpose and use are called :**

- a- Qualitative data.
- b- Primary data.
- c- Secondary data.
- d- Continuous data.

**10- Which of the following is an example of nominal data?**

- a- Number of people on a course.
- b- Cancer staging scale.
- c- List of different species of bird visiting a garden over the past week.
- d- Heart rate.

**11- Statistic is a numerical summary, which is calculated from :**

- a- Population
- b- Sample
- c- Data
- d- Observations

**12- Bias :**

- a- It is the systematic error in an estimate.
- b- The results of the study with bias can not be generalized.
- c- Misclassification is an example.
- d- All of the above.

**13- In statistical estimation, more precise estimate is obtained when :**

- a- The sample size is small.
- b- The data are less variable.
- c- The standard error is high.
- d- Non of the above.

**14- One of the graphical summarizations for the qualitative data is :**

- a- Histogram.
- b- Frequency polygon.
- c- Bar chart.
- d- Stem and leaf plot.

**15- Which one of the following measurements does not divide a set of observations into equal parts?**

- a- Quartiles.
- b- Standard Deviation.
- c- Percentiles.
- d- Deciles.

**16- Interquartile range (IQR) can be used as a measure of :**

- a- Dispersion.
- b- Precision.
- c- Relative variation.
- d- All of the above.

**17- Convenience sampling is an example of :**

- a- Probabilistic sampling.
- b- Stratified sampling.
- c- Non-probabilistic sampling.
- d- Cluster sampling.

**18- The number of accidents in a city during 2016 is :**

- a- Discrete variable.
- b- Continuous variable.
- c- Qualitative variable.
- d- Constant.

- 19- Suppose the test scores of 600 students are normally distributed with a mean of 76 and standard deviation of 8. The number of students scoring between 70 and 82 is :
- a- 272
  - b- 164
  - c- 328
  - d- 260
- 20- Which of the following statements is NOT true?
- a- The median is always greater than the mean.
  - b- In a symmetric distribution, the mean and the median are equal.
  - c- The first quartile is equal to the twenty-fifth percentile.
  - d- In a symmetric distribution, the median is halfway between the first and the third quartiles.
- 21- A variable that assumes unlimited values within a range is called :
- (a) Discrete variable
  - (b) Continuous variable
  - (c) Independent variable
  - (d) Dependent variable
- 22- If a distribution is abnormally tall and peaked, then it can be said that the distribution is :
- a- Leptokurtic.
  - b- Pyrokurtic.
  - c- Platykurtic
  - d- Mesokurtic.
- 23- Suppose a frequency distribution is skewed with a median of \$75.00 and a mode of \$80.00. Which of the following is a possible value for the mean of distribution?
- a- \$86
  - b- \$91
  - c- \$78
  - d- None of the above.
- 24- Select the statement which you believe to be true. A Histogram :
- a- Can be used instead of a pie chart to display categorical data.
  - b- Is similar to a bar chart but there are no gaps between the bars.
  - c- Can be used to display only a relative frequency distribution.
  - d- Is used to show the relationship between two quantitative variables.
- 25- The measure of dispersion that is not influenced by extreme values is :
- a- The standard deviation.
  - b- The range.
  - c- The interquartile range.
  - d- None of the above.
- 26- The suitable graphical presentation of relation between height and age in years is :
- a- Scatter diagram.
  - b- Bar chart.
  - c- Pie chart.
  - d- Frequency polygon.

27- The heights of students at a college are normally distributed with a mean of 175 cm and a standard deviation of 6 cm. One might expect in a sample of 1000 students that the number with heights less than 163 cm is :

- a- 997
- b- 23
- c- 477
- d- 228

28- Select from the following, an example of the categorical variables :

- a- Number of episodes of disease in a patient over a year.
- b- Serum bilirubin level (mg/dL).
- c- Severity of haemophilia (mild /moderate /severe).
- d- Reduction in blood pressure following antihypertensive treatment (mmHg).

29- If a series of numbers consists of 21 ordered values, the median is :

- a- The 11th value in the ordered series.
- b- The mean between the 10th and 11th values.
- c- The mean between the 11th and 12th values.
- d- The 10th value in the ordered series.

30- Marks on a Chemistry test follow a normal distribution with a mean of 65 and a standard deviation of 12. Approximately what percentage of the students have scores below 50?

- a- 25%
- b- 14%
- c- 18%
- d- 39%

II- Two groups of fourth year medical students (Group I included 14 students from Tanta University and group II included 16 students From Cairo university). Both groups were enrolled in a Public Health exam. The mean score obtained by students of group I was 80.5 with a standard deviation of 8.5 and that of group II was 73.0 with a standard deviation of 6.5.

Compare the mean difference in scores obtained by Tanta and Cairo medical students?

III- The following table shows the distribution of results of the final exam in Epidemiology of 150 nursing students (71 students from Tanta University and 79 students from Cairo University).

Results	University		Total
	Tanta	Cairo	
Succeeded	40	52	92
Failed	31	27	58
Total	71	79	150

Compare the results of the exam between the two universities.

***Good Luck***

Time: 3 hours

8/8/2017

MD Degree Audiology

Acoustics

All questions must be answered

- 1- Discuss different cues contributing to Sound Localization.  
(13 degrees)
- 2- Write (with illustrations) on different Types of Filters.  
(14 degrees)
- 3- Discuss Acoustical Standing Waves: Basic Concepts,  
Components and Clinical Importance. (13 degrees)

Good Luck

**Date: 10/8/2017**  
**Examination For MD Audiology**  
**Term: Final**  
**Course Title: Physiology**  
**Time Allowed: Three Hours**

**Tanta University**  
**Faculty Of Medicine**  
**Department Of Physiology**  
**Course Code: ENT 900 AUD 2**  
**Total Assessment Marks: 100**

**All questions are to be answered:**

- 1-Discuss functions of middle ear and deafness. (40 marks)
- 2-Discuss physiology of non auditory membranous labyrinth. (30 marks)
- 3-Give an account of speech and its disorders. (30 marks)

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**Oral Exam will be on Sunday 20 /8/2017 at 9am at Physiology Department**

**Good Luck**