Descriptive Statistics Quiz

Total points 20/29

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✓ 1. A researcher is curious about the IQ of students at the Utrecht University. The entire groupof students is an example of a: 1/1

- ○ Parameter
- ○ Statistic
- ◉ Population ✓
- ○ Sample

✗ 2. How can you best describe descriptive stats ? 0/1

- [ ] Allow random assignment to experimental conditions
- [ ] Use data from a sample to answer questions about a population
- [x] Summarize and describe data ✓
- [ ] Allow you to generalize beyond the data at hand

Correct answer

- [x] Summarize and describe data
- [x] Allow you to generalize beyond the data at hand

✓ 3. Which of the following can be termed as Descriptive measure of data ? 1/1

- [x] Mean age of people in Singapore ✓
- [x] The number of people who watched the superbowl in the year 2002 ✓
- [ ] Prediction of next month's unemployment rate
- [x] Median price of new homes in New York ✓
- [x] Weight of heaviest man in the world ✓

✓ 4. Which of the factor can influence mean of a data ? 1/1

- ( ) Order of data
- ( ) Individual Scores
- (•) Outliers ✓
- ( ) Standard Deviation

✗ 5. Which of the following is the least helpful in determining the diversity of data ? 0/1

- ○ Standard Deviation
- ○ Variance
- ○ Mean
- ◉ Range ✗

Correct answer

- ◉ Mean

✓ 6. What is range of given data [7, 9,19, 22, 27,29,35] 1/1

- ○ 23
- ○ 25
- ◉ 28 ✓
- ○ None

✓ 7. If the mean of 30 observations is found to be 15. What is the sum of observations ? 1/1

- ○ 15
- ○ 45.0
- ○ 200
- ◉ 450 ✓

✗ 8. A numerical value used as a summary measure for a sample, such as sample mean, is known as a 0/1

- ○ population parameter
- ○ sample parameter
- ○ sample statistic
- ◉ population mean ✗
- ○ None of the above answers are correct

Correct answer

- ◉ sample statistic

✓ 9. The number of employees in Company A are 650 and average pay is $2750 a month and the number of employees in company B is 700 and average monthly pay is $2500 and what is average pay of merged company A and B assuming no employee is laid off and no hikes offered as a part of merger deal 1/1

- ○ $2520
- ◉ $2620 ✓
- ○ $2320
- ○ $2420

✓ 10. What does measure of variability indicates 1/1

- ○ if the mean is greater than the mode
- ◉ how well the measure of central tendency represents the entire set of scores ✓
- ○ if the high and low extremes scores cancel each other out
- ○ whether or not to compute percentiles

✓ 11. What is the disadvantage of using the sum of squared deviations for measuring variability 1/1

- ○ it uses the mean in its calculation
- ○ it cannot be used in any other statistical analyses
- ◉ it does not take N into account ✓
- ○ it can only be used with ratio data

✓ 12. What does not characterizes the mean 1/1

- ○ The sum of the deviations about the mean is 0
- ○ It is best used with ordinal data
- ◉ It minimizes the sum of squared deviations ✓
- ○ It is affected by extreme scores

The following data show the no of hours worked by 200 statistics students :-

Number of Hours	Frequency
0-9	40
10-19	50
20-29	70
30-39	40

✗ 13. The class width for this distribution is 0/1

- (●) 9 ✗
- ( ) 10
- ( ) 11
- ( ) varies from class to class
- ( ) None of the above

Correct answer

- (●) 10

✓ 14. The number of students working 19 hours or less. 1/1

- ( ) 40
- ( ) 50
- (●) 90 ✓
- ( ) Cannot be determined without the original data
- ( ) None of the above

✓ 15. Since the population size is always larger than the sample size, then the sample statistic 1/1

- ○ can never be larger than the population parameter
- ○ can never be equal to the population parameter
- ◉ can never be zero ✓
- ○ can never be smaller than the population parameter
- ○ None of the above answers are correct

✓ 16. The sum of the percent frequencies for all classes will always be equal to 1/1

- ◉ one ✓
- ○ the number of classes
- ○ the number of items in the study

Students in my undergraduate statistics class, Summer, 2010, were asked to rate how fearful they were of the course (statophobia), using a scale from 0 (absolutely no fear) to 10 (extreme sympathetic arousal and crippling emotions). Here are the data for the male students:

Statoph[a]

	Frequency
5	1
7	2
10	1
Total	4

a. Gender = Male

✓ 17. For these 3 scores. (a) Compute the Mean. 1/1

7.25 ✓

✗ (b) Compute the median. …/1

7.5 ✗

Correct answer

7

✓ (c) Compute the mode 1/1

7 ✓

Feedback

Only 7 is observed twice

✓ (d) Compute the range 1/1

5 ✓

✗ (e) Compute the sample variance ···/1

3.1875 ✗

Correct answer

3.18

✗ (f) Compute the sample standard deviation ···/1

1.785 ✗

Correct answer

1.78

✗ (g) Upon the mean to median computation, identify the shape of the distribution. ···/1

positive(right) skewed ✗

Correct answer

Right skewed

Feedback

Mean is greater than median, hence it could be positive skew

✓ 18. Standard Deviation can be negative (True or False) 1/1

- ○ True
- ◉ False ✓

✓ 19. If a positively skewed distribution has a median of 50, which of the following statement is true? 1/1

- ◉ Mean is greater than 50 ✓
- ○ Mean is less than 50
- ○ Mode is less than 50
- ○ Mode is greater than 50
- ○ Both mean is less than 50 and mode is greater than 50

✗ 20. What is the median of the following set of scores? 18, 6, 12, 10, 14, 7, 20, 21 0/1

- (●) 12 ✗
- ( ) 13
- ( ) 7
- ( ) 10

Correct answer

- (●) 13

✓ 21. Which of the following represents the fiftieth percentile, or the middle point in a set of numbers arranged in order of magnitude? 1/1

- ( ) Mode
- (●) Median ✓
- ( ) Mean
- ( ) Variance

✓ 22. Since the mode is the most frequently occurring data value, it 1/1

- ( ) can never be larger than the mean
- ( ) is always larger than the median
- ( ) is always larger than the mean
- (●) must have at-least two occurrences ✓
- ( ) None of the above

✓ 23.Students in two science classes took an exam. Both classes had the same mean score of 76. However Class #1 showed a standard deviation of 10, while Class #2 showed a standard deviation of 16. This means that 1/1

- ○ Class #2 had better test scores overall than Class #1.
- ○ there was a wider range of scores in Class #1 than in Class #2.
- ◉ there was a wider range of scores in Class #2 than in Class #1. ✓
- ○ the average score of Class #2 was 6 points higher than the average score in Class #1.