

Default for STT205

The default category for questions shared in context 'STT205'.

Fill in the Blank (FBQs)

FBQ1

Any measure indicating the Centre of a set of data, arranged in an increasing or decreasing order of magnitude, is called a measure of: _____

Central tendency

1.0000000

0.0000000

FBQ2

Scores that differ greatly from the measures of central tendency are called: _____

Outliers

1.0000000

Extreme values

1.0000000

Extreme scores

1.0000000

FBQ3

The total of all the observations divided by the number of observations is called: _____

Arithmetic mean

1.0000000

0.0000000

FBQ4

The sample mean is an example of a: _____

Statistic

1.0000000

0.0000000

FBQ5

The population mean $\hat{\mu}$ is an example of a:

Parameter

1.0000000

0.0000000

FBQ6

The arithmetic mean is highly affected by: _____

Extreme values

1.0000000

Outliers

1.0000000

FBQ7

If a constant value is added to every observation of data, how would the value of the arithmetic mean behave? _____

Increased by the constant

1.0000000

0.0000000

FBQ8

The median is considered a robust measure because it is resistant to: _____

Outliers

1.0000000

Extreme values

1.0000000

FBQ9

What effect will the elimination of extreme scores at the bottom of a data set have on the mean? _____

Increase the mean

1.0000000

0.0000000

FBQ10

The elimination of extreme scores at the top of the set has the effect of:

Reduce the mean

1.0000000

0.0000000

FBQ11

The sum of deviations taken from mean is: _____

0

1.0000000

Zero

0.0000000

FBQ12

The sum of the squares of the deviations about mean divided by the number of observations is: _____

Variance

1.0000000

0.0000000

FBQ13

If then sample mean \bar{X} will be: _____

60

1.0000000

0.0000000
FBQ14

25
1.0000000

0.0000000
FBQ15

The sum of the squares of the deviations of the values of a variable is least when the deviations are measured from: _____

Arithmetic mean
1.0000000

0.0000000
FBQ16

If $X=100$ and $Y=2X \hat{=}$ 200, then mean of Y values will be: _____

0
1.0000000
Zero
1.0000000
FBQ17

Step deviation method or coding method is used for computation of the _____

Arithmetic mean
1.0000000

0.0000000
FBQ18

If the arithmetic mean of 20 values is 10, then sum of these 20 values is: _____

200
1.0000000

0.0000000
FBQ19

Ten families have an average of 2 boys. How many boys do they have together?

20
1.0000000

0.0000000
FBQ20

If the arithmetic mean of the two numbers X_1 and X_2 is 5 if $X_1=3$, then X_2 is: _____

7

1.0000000

0.0000000

FBQ21

Given $X_1=20$ and $X_2=-20$. The arithmetic mean will be: _____

0

1.0000000

Zero

1.0000000

FBQ22

The mean of 10 observations is 10. All the observations are increased by 10%. The mean of increased observations will be: _____

11

1.0000000

0.0000000

FBQ23

The frequency distribution of the hourly wage rate of 60 employees of a paper mill is as follows:

The mean wage rate is: N_____

59.00

1.0000000

59

1.0000000

FBQ24

The sample mean \bar{X} of first n natural numbers is: _____

* $(n+1)/2$ *

1.0000000

0.0000000

FBQ25

The sum of deviations is zero when deviations are taken from: _____

Mean

1.0000000

0.0000000

0.0000000

FBQ26

When the values in a series are not of equal importance, we calculate the:

Weighted mean

1.0000000

0.0000000

FBQ27

When all the values in a series occur the equal number of times, then it is not possible to calculate the:_____

Weighted mean

1.0000000

0.0000000

FBQ28

The mean for a set of data obtained by assigning each data value a weight that reflects its relative importance within the set, is called:_____

Weighted mean

1.0000000

0.0000000

FBQ29

The arithmetic mean of 10 items is 4 and the arithmetic mean of 5 items is 10. The combined arithmetic mean is: _____

6

1.0000000

0.0000000

FBQ30

The midpoint of the values after they have been ordered from the smallest to the largest or the largest to the smallest is called:_____

Median

1.0000000

1.0000000

FBQ31

The first step in calculating the median of a discrete variable is to determine the: _____

Array

1.0000000

0.0000000

FBQ32

The suitable average for qualitative data is: _____

Median

1.0000000

0.0000000

FBQ33

If the smallest observation in a data is decreased, the average which is not affected is:

Median

1.0000000

0.0000000

FBQ34

Sum of absolute deviations of the values is least when deviations are taken from:

0

1.0000000

zero

1.0000000

FBQ35

The frequency distribution of the hourly wages rate of 100 employees of a paper mill is as follows:

The median wage rate is:N _____

59.00

1.0000000

59

1.0000000

Multiple Choice Questions (MCQs)

MCQ1

The values of the variate that divide a set of data into four equal parts after arranging the observations in ascending order of magnitude are called:

Semi-interquartile

0.0000000

quartiles

1.0000000

mean

0.0000000

limits

0.0000000

MCQ2

The lower and upper quartiles of a symmetrical distribution are 40 and 60 respectively.
The value of median is:

50

1.0000000

45

0.0000000

60

0.0000000

35

0.0000000

MCQ3

If in a discrete series 75% values are less than 30, then:

Third quartile =30

1.0000000

Second quartile = 30

0.0000000

Third quartile = 75

0.0000000

None of the options

0.0000000

MCQ4

The probability of the amount X (in million Naira) of investment in the shares of ABC Company is given as follows:

Find E (X).

$\frac{73}{5}$

0.0000000

$\frac{36}{21}$

0.0000000

$\frac{35}{18}$

1.0000000

$\frac{4}{5}$

0.0000000

MCQ5

The mean of first $2n$ natural numbers is:

$$(2n+1)/2$$

$$\frac{1.0000000}{(2n-1)/2}$$

$$\frac{0.0000000}{(n+1)/2}$$

$$\frac{0.0000000}{(2n+5)/2}$$

$$\frac{0.0000000}{\text{MCQ6}}$$

If $X_1, X_2, X_3, \dots, X_k$ be the arithmetic means of k distributions with respective frequencies $n_1, n_2, n_3, \dots, n_k$, then the mean of the whole distribution X_c is given by:

$$\frac{\sum nX}{\sum n}$$

$$\frac{0.0000000}{\sum nX - \sum n}$$

$$\frac{1.0000000}{\sum^2 nX - 4 \sum n}$$

$$\frac{0.0000000}{\sum^2 X - \sum n}$$

$$\frac{0.0000000}{\text{MCQ7}}$$

The combined arithmetic mean of two sets of means is calculated by which formula?

$$\frac{n_1 X_1 + n_2 X_2}{n_1 + n_2}$$

$$\frac{0.0000000}{n_1 X_1 + n_2 X_2 - n_1 + 2n_2}$$

$$\frac{0.0000000}{n_1 X_1 - n_2 X_2 - n_1 + 2n_2}$$

$$\frac{0.0000000}{n_1 X_1 + n_2 X_2 - n_1 + n_2}$$

$$\frac{1.0000000}{\text{MCQ8}}$$

Extreme scores will have the following effect on the median of an examination

They may have no effect

1.0000000

The effect is always skewed

0.0000000

The effect is always negative

0.0000000

The effect is always positive

0.0000000

MCQ9

The probability of the amount X (in million Naira) of investment in the shares of ABC Company of Adewale is given as follows:

$E(X)$. is actually 5.89. What is the variance of X ?

1.61

0.0000000

3.64

0.0000000

2.11

1.0000000

4.76

0.0000000

MCQ10

The grouped frequency distribution shown below is to be used to answer the following question

Which class is the modal class?

20 - 24

1.0000000

10 -14

0.0000000

30 - 34

0.0000000
15 - 19

0.0000000
MCQ11

The grouped frequency distribution shown below is to be used to answer the following question

Which class is the median class?

20 - 24

1.0000000
10 -14

0.0000000
30 - 34

0.0000000
15 - 19

0.0000000
MCQ12

The grouped frequency distribution shown below is to be used to answer the following question

What is the cumulative frequency of the modal class?

16

0.0000000
10

0.0000000
14

1.0000000
12

0.0000000
MCQ13

For a standard normal distribution, what is the values of the mean and variance?

Mean = 0, variance = 1

1.0000000

Mean = 1, variance = 0

0.0000000

Variance = 0

0.0000000

Mean = 1

0.0000000

MCQ14

Given the set of numbers: 15, 16, 12, 11, 19, 18, 13 then is,

1200

0.0000000

980

0.0000000

1460

0.0000000

1600

1.0000000

MCQ15

The mean of 63, 19, 52, 10, 95, 18 is

56.18

0.0000000

42.83

1.0000000

60.5

0.0000000

50.21

0.0000000

MCQ16

The median of 63, 19, 52, 10, 95, 18 is

30.6

0.0000000
50.8

0.0000000
35.5

1.0000000
40.7

0.0000000
MCQ17
The mode and the range of the above data are

40, 40

1.0000000
30, 40

0.0000000
40, 50

0.0000000
50, 40

0.0000000
MCQ18
The geometric mean of 6, 8, 10 and 16 is

9.36

1.0000000
11.23

0.0000000
8.11

0.0000000
10.23

0.0000000
MCQ19
The harmonic mean of 6, 7, 8 and 9 is

8.32

0.0000000
6.89

0.0000000

7.33

1.0000000

9.61

0.0000000

MCQ20

Given that the mean of a distribution is 160, the mode is 150 and the standard deviation is 25. Find the coefficient of skewness

3.5

0.0000000

1.5

0.0000000

0.6

0.0000000

0.4

1.0000000

MCQ21

A set of sales from an outlet produced the following: 16, 14, 18, 10, 12 compute the variance

9

0.0000000

10

0.0000000

8

1.0000000

12

0.0000000

MCQ22

The coefficient of variation for data set whose mean is 10 and variance 100 is

100%

1.0000000

80%

0.0000000

95%

0.0000000
75%

0.0000000
MCQ23
For a symmetric distribution

The mean, median and the mode are equal

1.0000000
The mean, median are equal

0.0000000
The mean, mode are equal

0.0000000
The mean, median and the mode are different

0.0000000
MCQ24
Which statistics is found by summing all the values and dividing by the number of observations?

The median

0.0000000
The arithmetic mean

1.0000000
The mode

0.0000000
None of the options

0.0000000
MCQ25
How would you describe the skewness of a distribution whose mean is smaller than the median?

Negatively skewed

1.0000000
Positively skewed

0.0000000
normal

0.0000000
None of the options

0.0000000

MCQ26

What level of measurement is required for the median?

nominal

0.0000000

ordinal

1.0000000

discrete

0.0000000

continuous

0.0000000

MCQ27

The Nigeria Stock Exchange (NSE) index increased from 961 in 1980 to over 9,500 in 2003. The annual rate of increase is best described by the

Geometric mean

1.0000000

Harmonic mean

0.0000000

Arithmetic mean

0.0000000

Standard variation

0.0000000

MCQ28

What is the shape of a frequency distribution with an arithmetic mean of 12,000 pounds, a median of 12,000 pounds, and a mode of 12,000 pounds?

symmetric

1.0000000

asymmetric

0.0000000

Beta

0.0000000

alpha

0.0000000

MCQ29

Given that the mean of a distribution is 60, the mode is 50 and the standard deviation is 25. Find the coefficient of skewness:

0.6

0.0000000

0.9

0.0000000

0.7

0.0000000

0.4

1.0000000

MCQ30

A set of experimental animals was fed in a special diet for one week and produced the following gains in weight: 6, 4, 8, 10, 12 compute the variance:

8

1.0000000

10

0.0000000

9

0.0000000

7

0.0000000

MCQ31

The coefficient of variation for data set whose mean is 16 and variance 10 is

19.8

1.0000000

12.7

0.0000000

10.8

0.0000000

14.7

0.0000000

MCQ32

Given the mean = 60 and variance is 625, find the coefficient of variation

63.9%

0.0000000

55.7%

0.0000000

41.7%

1.0000000

72.1%

0.0000000

MCQ33

Suppose A and B are independent events with $P_A=0.2$, $P_B=0.6$. What is P_{AB} ?

0.4

0.0000000

0.2

1.0000000

0.7

0.0000000

0.1

0.0000000

MCQ34

In a shipping organization, it is observed that the total number of items imported is 400 units. If you are to categorise these items into types of commodity with the aid of a pie chart, what angle would 160 units of chemical take?

144 degree

1.0000000

152 degree

0.0000000

98 degree

0.0000000

108 degree

0.0000000

MCQ35

The data collected by questionnaires are usually classified as what type of data?

Secondary data

0.0000000
direct

0.0000000
indirect

0.0000000
Primary data

1.0000000