STA301-PROBABILITY
MIDTERM
SOLVED BY :JUNAID MALIK



AL-Junaid Institude

Contact no: 03041659294

VU LMS HELP vulmshelp.com

LMS Handling

Subject Enrollment

1) Online classes available
HTML, CSS, Javascript
Phyton..etc
2) Solved Graded Activities
- Assignment's
- Quizze's
- GDB's

3) Sloved Quiz File's
4) Short Note's
5) Past paper's &
Current paper's

Final project CS619

1) SRS
(Software Requirement's Specification)
2) DD
(Design Document)
3) Test phase + viva
4) Viva preparation
5) Final Deliverable

Website Link
vulmshelp.com

Gmail
junaidfazal08@gmail.com

A histogram is consisting of a set of a set of adjacent rectangle whose bases are marked off by:

a. Class boundaries (Lecture no 4 Page no 32 Handouts)
b. Class limits
c. Class frequency
d. Class marks

The middle value of an ordered array of numbers is the

a. Mean
b. Median (Lecture no 7 Page no 59 Handouts)
c. Mode
d. Midpoint

If Mean =25 & S.D is 5 then C.V is:

a. 100%
b. 20% (Lecture no 11 Example Page no 88 Handouts)
c. 10%
d. 25%

Solution: C.V = (S.D/X) x 100 = (5/25) x 100 = 20% Answer

you connect the mid-points of rectangles in a histogram by a series of lines that also touches the x-axis from both ends, you will get:

a. Ogive
b. Frequency polygon
c. Frequency curve page 38
d. Historigram

The conditional probability P (A/B) is:

a. P (A n B)/P (B) (Lecture no 20 Page no 154 Handouts)
b. P (A n B)/P (A)
c. P (A U B)/P (B)
d. P (A U B)/P (A)

Serious disadvantage of using range as a measure of dispersion is that it is based on only:

a. Minimum Values
b. Maximum Values
c. Both Minimum and Maximum values
d. None of the above

vumshelp.com

0304-1659294

Frequency of a variable is always in:

a. Fraction form
b. Percentage form
c. Less than form
d. Integer form

$^{5}C_{5}$ is equal to

a. 5
b. 1
c. 10
d. 24

Chebychev's inequality does not hold for k = ?

a. 3
b. 2
c. 1
d. 0 (Lecture no 12 Page no 94 Read CHEBYCHEV'S THEOREM)

If A = {1,2,3,4} and B = {3,4,5,6} then A – B will be:

a. {1,2}
b. {3,4}
c. {3,2,1}
d. {1,2,3,4,5,6}

If P (B|A) = 0.25 and P (A and B) = 0.20, then P (A) is

a. 0.05
b. 0.80
c. 0.95
d. 0.75

Solution: P (B|A) = [P (A and B)] / P (A)
P (A) = [0.20 / P (B|A)]
P (A) = [0.20 / 0.25]
P (A) = 0.80

According to Empirical rule, approximately 68% of the measurements will fall within:

a. (Mean - S.D, Mean + S.D) (Lecture no 12 Page no 90 Handouts)
b. (Mean - 2S.D, Mean + 2S.D)

vulmshelp.com

0304-1659294

c. (Mean - 3S.D, Mean + 3S.D)
d. None of these

For Platykurtic distribution, b2 (moment ratio) will be:

a. Greater than 3
b. Less than 3 (Lecture no 14 Page no 114 Handouts)
c. Equal to 3
d. Equal to zero

There are two broad categories of data, which are:

a. Weighted and Un-weighted
b. Grouped and Un-grouped
c. Qualitative and Quantitative (Lecture no 3 Page no 16 Handouts)
d. Primary and Secondary

In a linear regression, Y= a+bX , the variable "Y" will always:

a. A random variable (Lecture no 15 Page no 117 Handouts)
b. A non-random variable
c. Qualitative variable
d. Quantitative variable

In regression line Y= a+bX , X is called:

a. Dependent variable
b. Independent variable (Lecture no 15 Page no 116 Handouts)
c. Explained variable
d. Regressand

Difference between the largest and the smallest data values is called

a. variance
b. interquartile range
c. range
d. coefficient of variation

The extremely positively skewed curve is also known as:

a. Frequency curve
b. U-shaped curve
c. J-shaped curve
d. Reverse J-shaped curve (Lecture no 5 Page no 35 Handouts)

vulmshelp.com

0304-1659294

A list of 7 pulse rates is: 70, 64, 80, 74, 92, 96, 98. What is the median for this list?

a. 70
b. 80
c. 92
d. 98

Solution: Median is the middle value. First of all we will arrange them in ascending order 64, 70, 74, **80**, 92, 96, 98

The value of 10C9:

a. 45
b. 35
c. 35
d. 10

The most frequent value in the data is called

a. Mean
b. Median
c. Mode
d. Harmonic mean

An event that contains more than one sample points is called:

a. Mutually exclusive event
b. Not mutually exclusive event
c. Hyper event
d. Compound event (Lecture no 17 Page no 140 Handouts)

Calculate range for the following data: 22, 22, 30, 32, 37, 48, 60, 88, 90.

a. 22
b. 90
c. 37
d. 68

Solution: Largest value – Smallest value = Range
90 – 22 = **68 Answer.**

What is the median of this set of numbers: 4, 6, 7, 9, 2000000?

a. 9
b. 6
c. 7.5
d. 7

The value of the middle term in a ranked (ordered) data set is called the:

vulmshelp.com

0304-1659294

a. Mode
b. Mean
c. Median
d. Harmonic mean

The median is _____.

a. The highest number
b. The middle point
c. The average
d. Affected by extreme scores

The Mode of 8, 5, 7, 10, 15, 21, 5, 7, 2, 5 is

a. 8
b. 5
c. 7
d. 21

Note: Mode is the most repeated value so in this case 5 is the most repeated value.

When all the values falling in a class are equal to the mid point of the class interval is called ……..?

a. Random error
b. Unbiased Error
c. Biased Error
d. Grouping Error (Lecture no 7 Page no 56 handouts)

For a Leptokurtic distribution, b2 (moment ratio) will be:

a. Greater than 3 (Lecture no 14 Page no 114 Handouts)
b. Less than 3
c. Equal to 3
d. Equal to zero

Let A = {1,2,3,4} and B = {3,4,5,6} Then A ∩ B:

a. {3,4}
b. {1,4}
c. {3,5}
d. {3,6}

The range of the scores 29, 3, 143, 27, 99 is:

a. 140
b. 143
c. 146

vulmshelp.com

0304-1659294

d. 70

Solution: (143 – 3) = 140 Answer

In how many ways, a team of 11 players can be chosen from a total of 16 players?

a. 4368
b. 2426
c. 5400
d. 2680

Direct personal investigation is _____ when the area to be covered is vast. **(Doubtful)**

a. Costly (Lecture no 2 Page no 6 Handouts)
b. Time-consuming (Lecture no 2 Page no 6 Handouts)
c. Localized inquires
d. Inaccurate

Note: It can be both read lecture no 2 Page no 6 Handouts.

What is the mean of this set of numbers: 4, 6, 7, 9, 200000?

a. 7.5
b. 7
c. 400,005.2
d. 4

Solution: Mean = (4+6+7+9+200000)/5 = **400,005.2 Answer**

According to this empirical rule, approximately how much values will fall within (Mean – 3S.D, Mean + 3S.D)?

a. 100% (Lecture no 12 Page no 90 Handouts)
b. 95%
c. 75%
d. 68%

In a linear regression, Y= a+bX , the variable "X" will always:

a. A random variable
b. A non-random variable (Lecture no 15 Page no 117 Handouts)
c. Qualitative variable
d. Quantitative variable

Variance is expressed in _____ units as the units of data set.

a. Squared (Lesson no 11 Page no 85 Handouts)
b. Cube

vulmshelp.com

0304-1659294

c. Single
d. Same

In a linear regression, best fitted line is obtained through:

a. Method of moment
b. Method of likelihood
c. Method of least square
d. Method of semi average

In case of frequency distribution, the median is given by the formula:

a. I+h/f (n/2-2c)
b. I+h/f (n/2-c)
c. I+f/h (n/2-c)
d. I+f/h (n/4-c)

The sum of squared deviations from mean is:

a. Maximum
b. Minimum
c. Zero
d. Undefined

In a week the prices of a bag of rice were 350,280,340,290,320,310,300.

a. 320
b. 315
c. 300
d. 420

Which scale will you use to measure the temperature?

a. Nominal scale
b. Interval scale (Lecture no 1 Page no 4 Handouts)
c. Ratio scale
d. Ordinal scale

From the given data, which one of the following chart we can draw:

Year	Turnover
1965	350000
1966	42000
1967	43500
1968	48000
1969	48500

a. Simple bar chart
b. Multiple bar charts

vulmshelp.com

0304-1659294

c. Component bar chart
d. Pie chart

In a Venn diagram, the overlap between two circles represents:

a. The union of two sets
b. The intersection of two sets
c. The elements that are in either of two sets
d. The difference between the number of elements in two sets

Calculate range for the following data: 10, 32, 33, 34, 37, 42, 55,58, 70

a. 50
b. 60
c. 40
d. 20

Solution: Largest value – Smallest value = Range
70 – 10 = **60 Answer**

When the frequency distribution or curve departs from symmetry, is called

Skewed
Positively skewed
Negatively skewed
None of these

Measure of central tendency is used to measure:

a. Average
b. Variability
c. Location
d. Both Average and Location

Component bar charts are used when data is divided into:

a. Parts
b. Groups
c. Circles
d. None of these

In a Box and Whisker plot, right end of the box is referred as:

a. First quartile
b. Second quartile
c. Third quartile
d. Mode

vulmshelp.com

0304-1659294

Fourth moment about mean provides information about the _____ of the distribution.

a. Centre
b. Dispersion
c. Symmetry
d. Kurtosis

Let A abd B are two dependent events such that
P(A)=1/4, P(A/B)=1/2 and P(B/A)=2/3.
Find P(A∩B).

a. 1/8
b. 1/6
c. 2/3
d. 1/4

Consider a set A = {1,2,3}. What is the number of subsets of A? **(Doubtful)**

a. 3
b. 6
c. 8
d. 9

The stem for the following data is:
22, 45,36, 15, 14, 12, 14, 14, 17, 21, 24, 24, 25, 25, 26, 26, 27, 29, 31, 34,35

a. 1,2,3,4
b. 1,2,3,4,5
c. 11, 12,13,14,15
d. 10,20,30,40,50

An event that contains more than one sample points is called: **(Doubtful)**

a. Mutually exclusive event
b. Normal event
c. Simple event
d. Compound event

Frequency distribution is considered as negatively skewed if all values of distribution moves to

a. lower tail
b. median tail
c. variance tail
d. upper tail

Which of the following is NOT a common measure of central tendency?

vulmshelp.com

0304-1659294

a. Mode
b. Range
c. Median
d. Mean

From the table given below, how many students obtained marks between 60 and 69? **(Doubtful)**

Marks	f	Mid-Points
50-59	5	54.5
60-69	7	64.5
70-79	8	74.5
80-89	5	84.5

64.5
12
60
7

If the first and third quartiles are 22, 16 and 56,36 respectively, then the quartile deviation is:

a. 17.1
b. 30.5
c. 50.5
d. 51.3

Adding all the squared deviations taken from mean and dividing by the number of observations, we get:

a. Standard Deviation
b. Variance
c. Mean Deviation
d. None of the above

Standard deviation divided by mean is known as:

a. Co-efficient of standard deviation
b. Co-efficient of variation
c. Both
d. None

5C5 equals to:

a. 5
b. 1
c. 10
d. 15

vulmshelp.com

0304-1659294

Which of the measure of dispersion is used to compare variation between two series?

a. C.V.
b. Q.D.
c. M.D.
d. S.D.

If Y=3X+5, then S.D of Y is equal to **(Doubtful)**

a. 9 s. d(x)
b. 3 s. d(x)
c. s. d(x)+5
d. 3 s. d(x) + 5

Which of the following technique is not used to represent the bivariate qualitative data?

a. Component Bar Chart
b. Multiple Bar Chart
c. Line Chart
d. Pie Chart

When a frequency distribution involves "open-end" classes, then which average is appropriate?

a. Mean
b. Mode
c. Median (Lecture no 8 Page no 62 Handouts)
d. None of these

Harmonic mean is extremely useful in averaging _____ types of data.

a. Ratios
b. Rates
c. Both ratios and rates
d. None of the above

According to Empirical rule, approximately how much values will fall within (Mean-3S.D, Mean+3S.D)?

a. 100% (Lecture no Page no 90 Handouts)
b. 95%
c. 75%
d. 68%

What is probability of drawing two clubs from a well shuffled pack of 52 cards?

vulmshelp.com

0304-1659294

a. 13/51
b. 1/17
c. 1/26
d. 13/17

Solution: Total Cards = 52 cards
Number of club cards = 13 Probability of 1st card being club card = 13/52
Probability of 2nd card being club card = 12/51
∴ Total Probability
= (13/52) x (12/51)
= 1/17 Answer

Which pair of measure cannot be calculated when one of numbers in the series is zero?

a. G.M. and A.M.
b. H.M. and A.M.
c. G.M. and H.M.
d. None of these

Which of the following techniques is used to predict the value of one variable on the basis of other variables?

a. Correlation analysis
b. Coefficient of correlation
c. Covariance
d. Regression analysis

A bag contains 12 red balls and 12 blue balls. A ball is drawn at random. The probability that ball drawn is red is

a. 1/2
b. 5/11
c. 6/10
d. 1

Solution: Total Red Balls: 12
Total blue balls: 12
Total Balls: 12 + 12 = 24
Probability of ball drawn is a red ball:
P (Red) = 12/24 = **1/2 Answer**

If the GM of a set of two observations is 10 and its HM is 8, then the AM of the set of observations is

vulmshelp.com

a. 100
b. 12.5
c. 64
d. 7.5

RELATION BETWEEEN AM, GM AND HM - FORMULA

Relation between AM, GM and HM is:

AM×HM=GM^2

Solution: GM = 10, HM = 8, GM^2 = (10)^2 = 100, AM x HM = GM^2,

AM x 8 = 100, AM = 100/8 = 12.5 Answer

If A = {H, T} then which of the following is power set of A?

a. {{}, {H, T}}
b. {{H}, {T}, {H, T}}
c. {{H}, {T}, {H, T}, {T, H}}
d. {{}, {H}, {T}, {H, T}}

What do understand by the term power set?

In **set** theory, the **power set** (or **power set**) of a **Set** A is defined as the **set** of all subsets of the **Set** A including the **Set** itself and the null or empty **set**. It is denoted by P(A). Basically, this **set** is the combination of all subsets including null **set**, of a given **set**. Simple formula 2^n. n is the number of subsets. 2^2 = 4.

A= {H, T} = {{}, {H}, {T}, {H, T}} Answer

2nd Quartile = 5th Decile = 50th Percentile =?

a. Geometric Mean
b. Median
c. Mode
d. Harmonic Mean

The total number of observations, which are below a certain value are known as

A. class boundaries
B. class marks
C. cumulative frequency
D. variances

Histogram can be drawn only for:

0304-1659294

A. Discrete frequency distribution
B. Continuous frequency distribution
C. Continuous frequency distribution
D. Relative frequency distribution

Classification is the process of arranging data according to:

A. one characteristic
B. Two or more characteristic
C. Similar characteristic
D. None of these

Which of the following, measures the dispersion around mean?

A. Mean deviation
B. Standard deviation
C. Mean deviation and Standard deviation
D. None of these

What is mode for the following set of data: 1,1,2,2,5,5,7

a. 1
b. 1,2
c. 1,2,5
d. no mode in the data

The mode is the value that appears most frequently in a data set. A set of data may have one mode, more than one mode, or no mode at all. Other popular measures of central tendency include the mean, or the average of a set, and the median, the middle value in a set.

Important: The mode can be the same value as the mean and/or median, but this is usually not the case.

Which of the following averages give information about central value in the distribution?

a. Mean
b. Median I think
c. Mode
d. Harmonic mean

In a Pie diagram, the sector of a circle is obtained by:

a. (component part/total)*100
b. (component part/total)*360

0304-1659294

c. (component part/total)*180
d. (component part/total)*300

Relationship among the averages

a. HM ≥ GM ≥ AM
b. **AM ≥ GM ≥ HM**
c. GM ≤ HM ≤ AM
d. AM ≥ HM ≤ GM

Which of the scale is best to use for measuring the salary of an employee?

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

83. The mean of a distribution is 30, the mode is 24 and the standard deviation is 4, then the coefficient of skewness will be:

a. Less than zero
b. Equal to zero
c. **Greater than zero**
d. None of the above

Smaller standard error of estimate shows:

a. Data points are very far to the line
b. Data points are close to the line
c. There is no difference between line and points
d. Difference is additive

Data arranged in ascending or descending order of magnitude is called:

a. Ungrouped data
b. Grouped data
c. Discrete frequency distribution
d. **Arrayed data**

A circle in which sectors represents various quantities is called:

a. Histogram
b. Frequency Polygon
c. **Pie Chart**
d. Component Bar Chart

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

a. Mean
b. Median

0304-1659294

c. Mode
d. G.M

Chebychev's inequality is valid for the data set

a. Sample
b. Entire population
c. Both sample and entire population
d. None of the above

Which of the following terms best describes data that were originally collected at an earlier time by a different person for a different purpose?

a. Primary data
b. **Secondary data**
c. Experimental data
d. Field notes

Statistics deals with

a. Individuals
b. Isolated items
c. Observations
Aggregates of facts

. If a box contains six red, three blue and five pink ties then probability of blue ties will be equal to:

a. 1/14
b. **3/14**
c. 5/14
d. 6/14

Which of the rule is applied to any data set, regardless shape of the frequency distribution?

a. **Chebychev's rule**
b. Empirical rule
c. Combination rule
d. Permutation rule

Which average is used in the situation where the number of floors in the buildings at the center of a city?

vulmshelp.com

0304-1659294

a. Mean
b. Median
c. Mode
d. Variance

94. Rankings of the finishes of competitors in a foot race is an example of a(n)_____.

a. ratio scale
b**. ordinal scale**
c. nominal scale
d. interval scale

95. Among 18 articles, six having minor Defects and three have major defects. Determine the probability that an article selected at random has major defect.

a**. 1/6**
b. 1/5
c. 0.25
d. 0.11

96. A series of data with exclusive classes along with the corresponding frequencies is called:

a. Discrete frequency distribution
b**. Continuous frequency distribution**
c. Percentage frequency distribution
d. Cumulative frequency distribution

Using the following table, calculate P(X<2)

X	0	1	2	3
f(x)	1/8	3/8	3/8	1/8

a. 1/8
b. 3/8
c. 4/8
d. 7/8

98. If a distribution has two modes then the distribution is called:

a. Uni-Modal
b. Bi-Modal
c. Tri-Modal
d. Multi-Modal

1 For any two estimators T1 and T2, if VAR(T1) < VAR(T2), then T1 is:
Consistent
Unbaised
Sufficient

vulmshelp.com

0304-1659294

2 In a set of 10 values all the values are 5, what will be the P50?

2
5
10
20

3 What is the graphical shape of the chi-square distribution?

Positively skewed
Negatively skewed
Uniformly distributed
Norrmally distributed

4 Which of the following is a characteristic of the normal distribution:

It is a skewed distribution
It is bell-shaped
It is not asymptotic
It is leptokurtic

5 Please choose one
A five number summery consist of :

► 0 1 3 , , , , (97) m X Q Median Q andX Page
► 1 3 0 , , , , m X Q Mean Q andX
► 1 3 0 , , , , m X Q Mode Q andX
► 0 1 2 , , , , m X Q Median QandX

6 Please choose one
in a multiplication theorem P(A∩B) equals:

►P(A) P(B)
►P(A) + P(B)
►P(A) * P(B|A) (Page 159)
►P(B\A) * P(B)

7 The probability of drawing 'White' ball from a bag containing 4 red , 8 black and 3 white ball is

►0
►3/15
►1/12
►1/2

8 If A and B are mutually exclusive events then P(A or B) equals:

►P(A) + P(B) - P(A and B)
►P(A) * P(B)
►P(A) + P(B) (Page 155)
►P(A|B) + P(B|A)

9 The simultaneous occurrence of two events is called

►Prior probability
►Subjective probability not confirmed
►Conditional probability

vulmshelp.com

0304-1659294

►Joint probability

10 First moment about origin is always equals to:

►Mean (Page 119)
► Variance
► Standard Deviation
► Zero

11 Which one of the following measurement does not divide a set of observations into equal parts?

► Quartiles
► Deciles
► Percentiles
► Standard deviations

12 if first and third quartile are 21.16 and 56.36 respectively, then the quartile deviation is:

►17.1 (Page 84)
► 34.2
► 51.3
► 50.5

13 The height of student is 60 inch. This is an example of……?

► Continues data
► Qualitative data
► Categorical data
►Discrete data

14 Which of the statement is true regarding a sample?

►It is a part of population (Page 13)
► It must contain at least five observations
► It refers to descriptive statistics
► It produces true value

15 Which one of the following graphs is used for a time series data?

► Histogram
► Historigram
► Frequency curve
► Frequency polygon

16 Which of the following comes first to make frequency distribution

► No. of groups
► Class intervals
►Rang (Page 28)
► Tally marks

17 The average which is defines as reciprocal of arithmetic mean of the reciprocals of the values is called

► Geometric Mean
►Harmonic mean (Page 77)
► Mode

vulmshelp.com

0304-1659294

► Median

18 If a car is running at the rate of 15km/hr during first 30km, at 20km/hr during the second 30, which type of average will be used to find the average speed/hr:

► Weighted mean (Not sure)
► Harmonic mean
► Arithmetic mean
► Geometric mean

19 The probability of drawing a 'jack card 'from 52 playing cards is:

► 1/52
► 4/52
► 13/52
► 26/52

20 If all the values fall on the same straight line and the line has a positive slope then what will be the value of the correlation coefficient 'r':

► $0 \leq r \leq 1$
► $r \geq 0$
► $r = +1$
► r=-1

21 If a curve has a longer tail to the right, it is called:

► Positively skewed (Page 39)
► Negatively skewed
► J-shaped
► Symmetric

22 Which one of the following is not included in measures of central tendency?

► Quartile deviation (Page 82)
► Harmonic mean
► Geometric mean
► Arithmetic mean

23 Which of the following is not based on all the observations?

► Arithmetic Mean
► Geometric Mean
► Harmonic mean
► Mode

24 What is the Standard Deviation of 7, 7, 7, 7, 7, 7, 7

► 49
► 1
► 0 (Standard deviation will always be zero if all the values in data are same)
► 7

25 10! =.....

► 362880
► 3628800

vulmshelp.com

0304-1659294

► 362280
► 362800

26 If a player well shuffles the pack of 52 playing cards, then the probability of a black card from 52 playing cards is:
► 1/52
► 13/52
► 4/52
► 26/52

27 Which dispersion is used to compare variation of two series?
► C.V. (Page 93)
► Q.D.
► M.D.
► S.D.

28 In a regression line Y= a + bX, the value of the correlation coefficient will be zero if:
► ►Intercept a = 0
► Intercept a ≠ 0
► ►Slope b = 0
► ►Slope b ≠ 0

29 When two coins are tossed the probability of at least one head is:
► 1/4
► 3/4 (HH, HT, TH, TT)
► 2/4
► 4/4

30 In the model Y = mX + a, Y is also known as the:
► Predictor variable
► Independent variable
► Predicted (dependent) variable (Page 121)
► Explanatory variable

31 According to empirical rule approximately 95% of the measurements will fall under which interval?
► X ± S
► X ± 2S correct
► X ±3S
► X ± 4S

32 Which one of the following is written at the top of the table?
► Source note
► Foot note
► Prefatory note
► Title Click here for detail

33 Which one of the following is the class frequency?
► The number of observations in each class
► The difference between consecutive lower class limits
► Always contains at least 5 observations

vulmshelp.com

0304-1659294

► Usually a multiple of the lower limit of the first class

34 If X is a discrete random variable, then the function f (x) is

► A probability function
► A probability density function
► A density function
► A distribution function (Page 173)

35 If you connect the mid-points of rectangles in a histogram by a series of lines that also touches the x-axis from both ends, what will you get?

► Ogive
► Frequency polygon
► Frequency curve (Page 38)
► Historigram

36 If mean of the two observations is 10.5, then median of these two observations will be

► 7.5
► 8.5
► 9.5
► 10.5 (Page 68)

37 Which one is the formula of mid range?

$=\frac{x_0+x_m}{2}$ (Page 80)

38 For the given data 2, 3, 7, 0, -8 G. M will be:

► Negative
► Positive
► Zero (Page 75)
► Undefined

39 Which one is equal to explained variation divided by total variation?

► Sum of square due to regression
► Coefficient of determinant
► Standard error estimate
► Coefficient of correlation

40 in the given series 1,2,1,1,2,2,2,3,4,5,3,2,3,1,4,2,3 mode of given is

► 4
► 3
►1
► 2

41 True for the population,

vulmshelp.com

0304-1659294

► it must be large number of values
► It must refer to people
► It is collection of individual objects or measurement (Page 12)
► It is the small part of whole

42 Data arrangement in ascending or descending order
► Array data (Page 47)
► Group data
► Ungroup data
► Raw data

43 What is the main objective of Descriptive statistics?
► To test population properties
► To describe the data we collected
► To infer something about the population
► Making estimate

44 Which measure of central tendency?
► Variation of distribution
► Average of distribution (Page 51)
► Scattering of distribution
► Dispersion of distribution

45 If a=4 b=2 estimate line (i.e y=a+bx) and independent variable has value 3 the value of dependent variable
► 6
► 9
► 10 4+2(3)=10
► 11

46 The number of ways in which 4 books can be arranged
► 4
► 6
► 12
► 24 (Page 142)

47 If we plot paired observed (x,y)=1…….n on graph is called,
► Polygon
► Freasito diagram
► Scatter diagram
► Cumulative frequency diagram

48 The simultaneous occurrence of two events is called
► Descriptive probability
► Subjective probability
► Conditional probability
► Joint probability

49 Which one is the not measure of dispersion.
► The range
► 50th percentile

vulmshelp.com

0304-1659294

► Inter quartile range
► Variance

50 In positively skew cure which relation is
► The mean, median and mode are equal
► Mean is greater then median
► Median is greater then mean
► Standard deviation must be greater then mean or median

51 When coin tossed we get only
►1 outcome
► 2 outcomes
► 3 outcomes
► 4 outcomes

52 When mean is 25 and S.D is 5 then CV is
► 100%
► 25%
► 20%
► 10%

53 For a positively skewed distribution m3 will be:
► Positive (Page 119)
► Negative
► Zero
► 1

54 When data is labeled to identify an attribute of element, the measurement scale is:
► Ordinal (Page 9)
► Interval
► Nominal
► Ratio

55 Suppose the estimated equatio Yˆ = 5- 2 has been calculated for a set of data. What is slop of th line:
► 0
► 2
►-2 (Page 121)
► 5

56 If P(B|A) = 0.25 and P(A∩B) = 0.20 then P(A) is:
► 0.05
► 0.80 (Page 159)
► 0.95
► 0.75

57 Which branch of statistics deals with the techniques that are used to organize, summarize, and present the data:
► Advance

vulmshelp.com

0304-1659294

statistics

► Probability statistics
► Descriptive statistics (Page 61)
► Inferential statistics

58 In a sample of 800 students in a university, 160, or 20%, are Business majors.

Based on the above information, the school's paper reported that "20% of all the students at the university are Business majors."
This report is an example of :

► A sample
► A population
► Statistical inference
► Descriptive statistics

59 A set that contains all possible outcomes of a system is known as

► Finite Set
► Infinite Set
► Universal Set (Page 134)
► No of these

60 If X and Y are independent, then Var(X-Y) is equal to:

Var(X) -Var(Y)
Var(X) +Var(Y)
Var(X +Y)
Zero

61 Which of the following is the class frequency

► The number of observations in each class
► The difference between consecutive lower class limits
► Always contains at least 5 observations
► Usually a multiple of the lower limit of the first class

66 How to construct the class interval:

► Divide the class frequencies in half
► Divide the class frequency by the number of observations
► Find the difference between consecutive lower class limits
► Count the number of observations in the class

67 Data in the Population Census Report is:

► Ungrouped data (Page 11)
► Secondary data
► Primary data
► Arrayed data

68 What is the range of -2,-3,-5,-10 :

►-12 (Page 28)
► 8
► -8
► 2

vulmshelp.com

0304-1659294

69 The algebraic sum of deviations from mean is:
- ► Maximum
- ► Minimum
- ► Zero (Page 86)
- ► Undefined

70 The sum of squares of deviations from mean is:
- ► Undefined
- ► Zero
- ► Maximum
- ► Minimum

71 Statistic is a numerical quantity, which is calculated from:
- ► Population
- ► Sample (Page 7)
- ► Data
- ► Observations

72 If any value in the data is zero, then it is not possible to have:
- ► Harmonic Mean
- ► Arithmetic Mean
- ► Median
- ► Mode

73 For a symmetrical distribution… is equidistance from median:
- ► X0 and Xm
- ► Q1 and Q3 (Page 97)
- ► X0 and Q1
- ► Xm and Q3

75 If Mean = 25 & S.D is 5 then C.V is
- ► 100%
- ► 25%
- ► 20% (Page 93)
- ► 10%

76 A coin is tossed 3 times then, the number of sample points ii the sample space is:
- ► 3
- ► 8
- ► 6 (Page 145)
- ► 4

vulmshelp.com

77 What is the difference between a permutation and a combination:

►In a permutation order is important and in a combination it is not

► In a permutation order is not important and in a combination it is important

► A combination is based on the classical definition of probability

► A permutation is based on the classical definition of probability

78 What we consider in simple correlation analysis:

► Several independent variables

►Strength of the association between two variables (Page 128)

► Intercept with the X-axis

► Intercept with the Y-axis

79 If all the values fall on the same straight line and the line has a positive slope then what will be the value of the correlation coefficient 'r':

► 0 = r = 1

► r = 0

►r = +1 (rep)

► r=-1

80 Which of the following measure of dispersion is least affected by extreme values of observations in a data:

► Range Page 82)

► Quartile deviation

► Mean absolute deviation

► Standard deviation

81 The approximate number of observations in a set of data covered by the interval, Median±Q.D are:

►50 per cent (Page 84)

► 68.5 per cent

► 95.4 per cent

► 99 per cent

82 The dispersion which is calculated from all observed values is:

►Standard deviation (Page 87)

► Quartile deviation

► Rang

► Coefficient of Rang

83 In a set of 20 values all the values are 2, what is the value of Geometric Mean:

►2 (Page 75)

►5

► 10

► 20

84 In a set of 10 values all the values are 5, what is the value of 5th Decile:

►2

►5

► 10

vulmshelp.com

0304-1659294

►20

85 If a car is running at the rate of 15km/hr during first 30km, at 20km/hr during the secor 30, which type of average will be used to find the average speed/hr:

►W.M
►H.M

►A.M
►G.M

86 In stem and leaf plot, data is measured on:

►Ratio Scale
►Interval Scale
►Ordinal scale
►Nominal Scale

87 In statistics, we deal with:

►Individuals
►Isolated items
►Aggregates of facts (Page 7)
►Qualitative data

88 Which of the following is a systematic arrangement of data into rows and columns:

►Component bar chart
►Classification
►Tabulation
►Bar chart

89 For any number k.....1, at least 1 – 1/k2 of the data-values fall within k standard deviations of the mean:

►Greater than 1 (Page 97)
►Less than 1
►Greater or equal to 1
►Less or equal to 1

90 When E is an impossible event,then P(E) is:

►0 (Page 146)
►0.5
►1
►2

91 The data for an ogive is found in which distribution:

►A cumulative frequency distribution (Page 43)
►A relative frequency distribution
►A frequency distribution
►A joint frequency distribution

92 Which of the following statements is true regarding a sample:

►It is a part of population (Page 13)
►It must contain at least five observations

vulmshelp.com

0304-1659294

► It refers to descriptive statistics
► It produces True value

93 Which level of measurement is required for the median:
► Nominal
►Ordinal
► Interval
► Ratio

94 In a the regression line Y= a + bX+ € the variable which is non-random is:
►X Page 122)
►Y
► Both X and Y
► Neither X nor Y

95 The variable plotted on the horizontal or X-axis in a scatter diagram is called the:
►Scatter variable
► Independent variable
► Dependent variable
► Correlation variable

97 The descriptive measure of dispersion that is based on the concept of a deviation about the mean is:
► Range
► Inter quartile range
► Quartile deviation
►Standard deviation

98 Which branch of statistics deals with the techniques that are used to organize, summarize, and present the data:
► Advance statistics
► Probability statistics
►Descriptive statistics
► Inferential statistics

99 A population that can be defined as the aggregate of all the conceivable ways in which a specified event can happen is known as:
► Infinite population
► Finite population
► Concrete population
►Hypothetical population (Page 12)

100 When two dice are rolled, the numbers of possible sample points are:
►6
► 12
► 24

vulmshelp.com

►36 (6*6=36)

101 The correlation of coefficient lies between :
►0 to 1
► 0 to ∞

►- 1 to +1 (Page 128)
►+1 to ∞

102 Median can be found only when:
►Data is Discrete
►Data is Attributed Data is continuous
►Data is continuous Data is attributed
►Data is arranged (Page 52)

103 From the following observations 2,3,4,5,4,6,4, the mode is:
►2
►3
►4
►5

104 How to construct the class interval:
►Divide the class frequencies in half
►Divide the class frequency by the number of observations
►Find the difference between consecutive lower class limits
►Count the number of observations in the class

105 How many elements are in the sample space of rolling one die:
►6
►12
►24
►36

106 When two coins are tossed the probability of at most one head is:
►1/4
►2/4
►3/4
►4/4

107 In scatter diagram the variable plotted along Y-axis is:
►Independent variable
►Dependent variable
►Any one
►Undefined

108 Positive square root of variance of a distribution is:
►Rang
►Quartile deviation
►Standard deviation (Page 91)

vulmshelp.com

0304-1659294

► only (a) &(c)

109 When more values are lying at the start of the distribution, it is a:

► Symmetrical distribution
► Positively skewed
► Negatively skewed
► U shape figure

110 What is ' m f ' in the formula of mode:

► First frequency
► Last frequency
► Maximum frequency (Page 54)
► Minimum frequency

111 If median = 7 and Mean = 5, what is the value of 2 Q :

► 1
► 3
► 5
► 7 (because median = Q2)

112 The probability of drawing a king of spade from a pack of 52 cards is:

► 1/4
► 1/13
► 1/26
► 1/52

113 When referring to a curve whose longer tail is to the left, you would call it:

► U shape
► Skewed to the left (Page 39)
► Skewed to the right
► Symmetrical

114 In statistics,we deal with:

► Individuals
► Isolated items
► Aggregates of facts (Page 7)
► Qualitative data

115 The distribution is mesokurtic if the Moment Coefficient of kurtosis b2 is:

► Equal to 0
► Equal to 3
► Less than 3
► Greater than 3

116 A histogram consists of a set of adjacent rectangles whose bases are marked off by:

► Class boundaries (Page 32)
► Class limits
► Class marks

vulmshelp.com

► Class frequency

117 Stem and leaf was introduced by:
- ► Francis Galton
- ► Friedman
- ► John Tukey (Page 47)
- ► Pearson

118 For positively skewed distribution Mean…….Median…….Mode:
- ►=
- ►<
- ►>
- ► ≠

119 For a positively skewed distribution:
- ► Mean<Mode<Median
- ► Mdian<Mode>Mean
- ► Mode>Mean>Median
- ► Mean>Median>Mode

120 $^{5}\square_{5}$ 5 C Equals :
- ►1
- ►5
- ►10
- ►25

121 If a curve has a longer tail to the right, it is called :
- ►Positively skewed (Page 39)
- ► negatively skewed
- ► J-shaped
- ► Symmetric

122 In measures of relative dispersion unit of measurement is:
- ► Changed
- ►Vanish (Page 82)
- ► Does not changed
- ► Dependent

123 Data used by an agency which is originally collected by them is :
- ►Primary data (Page 11)
- ► Raw data
- ► Secondary data
- ► Grouped data

124 When we toss a coin , we get only:
- ►1 outcome
- ► 2 outcomes
- ► 3 outcomes
- ► 4 outcomes

vulmshelp.com

125 Which of the following is the class frequency

- ►**The number of observations in each class**
- ► **The difference between consecutive lower class limits**
- ► **Always contains at least 5 observations**
- ► **Usually a multiple of the lower limit of the first class**

126 Standard deviation is affected by the change of__:

- ► **Origin & scale**
- ► **Origin only**
- ► **Scale only Click here for detail**
- ► **Not origin & scale**

128 A die is rolled. What is the probability that the number rolled is greater than 2 and even:

- ► **1/2**
- ► **1/3**
- ►**2/3** **(greater than 2 = 3,4,5,6 = 4 numbers , 4/6=2/3)**
- ► **5/6**

129 The probability of drawing any one spade card is:

- ► **1/52**
- ► **4/52**
- ►**13/52**
- ► **52/52**

130 Which of the following is not the type of frequency curves?

- ► **The symmetrical frequency curve**
- ► **The extremely skewed frequency curve**
- ► **The U-shaped frequency curve**
- ►**Frequency polygon** **(Page 38)**

131 If the third moment about mean is zero 3 (m3 = 0) , then the distribution is:

- ►**Symmetrical**
- ► **Negatively skewed**
- ► **Positively skewed**
- ► **Mesokurtic**

1. Harmonic mean is extremely useful in averaging ---------- types of data.

a) Ratios
b) Rates
c) Both a & b

vulmshelp.com

0304-1659294

d) None

2. Harmonic mean is the reciprocal of

a) Arithmetic mean
b) Mode
c) Geometric mean
d) Median

3. Value of Harmonic mean depends on

a) Extreme values
b) Few observations
c) Both a & b
d) All the observations

4. Harmonic mean gives more weightage to --------- values

a) Smaller values
b) Larger values
c) Both the values
d) None of the above

5. Harmonic mean cannot be calculated for the data having ----------

a) positive
b) negative
c) zero
d) all of the above

6. Harmonic mean is lower value than-------

a) Arithmetic mean

b) Geometric mean

c) **Both a & b**

d) None

7. Harmonic mean is particularly useful in computing ----------

a) Average speed
b) Average price

vulmshelp.com

0304-1659294

c) Average rate
d) All the above

8. Harmonic mean cannot be calculated when there are--------

a) Both positive & negative items in series
b) one or more items are zero
c) both a & b
d) none

9. Relationship among the averages

A) HM ≥GM ≥AM

b) **AM≥GM≥HM**
c) GM ≤HM ≤AM
d) AM ≥HM <GM

10. If Arithmetic mean of a data is 106.6 and n=8, calculate Harmonic mean of given data

a) 0.8502

b) 0.8510

c) 0.8528

d) 0.0850

11. If reciprocal of Arithmetic mean of a data is 256.7 and N=23, calculate Harmonic mean of given data

a) 0.0892

b) 0.0893

c) 0.0894

d) 0.0895

12. Harmonic mean can be further algebraically manipulated

a) true
b) false
c) none
d) not known

vulmshelp.com

0304-1659294

13. The pulse rate of 5 persons are given as 72, 75, 67, 73, 74 Calculate harmonic mean

a) 70.94

b) 71.94

c) 73.94

d) 72.94

14. Harmonic mean is better than other means if the data are for

a) **speed or rates**

b) heights or lenghths

c)Binary values like 0 & 1

d) ratios or proportions

15. If the AM of a set oftwo observations is 9 and its GM is 6. then the HM of the set of observations is

a) **4**

b) 36

c) 12

d) 1.5

16. For a highly variable series the most suitable mean is :

a) AM

b) GM

c**) HM**

d) None of the above

vulmshelp.com

Which of the following terms best describes data that were originally collected at an earlier time by a different person for a different purpose?
Secondary data

From the table given below, how many students obtained marks between 60 and 69? Marks f Mid-Points 50-59 5 54.5 60-69 7 64.5 70-79 8 74.5 80-89 5 84.5
7

A list of pulse rates is 70. 64. 70. 80. 74, 92. What is the mode for this list?
70

Serious disadvantage of using range as a measure of dispersion is that it is based on only
None

If the mean of two observations is 11.5. then the median of these two observations will be
11.5

A coin is tossed and a single 6-sided 11.4 is rolled. Find the probability of landing on the head side of the coin and rolling a 3 on the die_
1/12

ln measures of relative dispersion, unit of measurement remains:
Different

In a class, there are 15 boys and 10 girls. Three students are selected at random. The probability that 1 girl and 2 boys are selected, is:
21/46

Suitable average for averaging the shoe sizes for children is:
Mode

The classical definition of probability is not applicable when the assumption of does not hold:
Mutually exclusive event

Quartile Deviation is based on
Not all values

A list of 5 pulse rates is: 70, 64, 80, 74. 92. What is the median for this list?
74

Which one of the following will be used to draw an OGIVE?

0304-1659294

Cumulative frequency distribution

What is the value of class mark for the given class 10-12?

11

It is recommended that the number of classes in a frequency distnbution be between:

5 and 20

Half of the observations are always larger than:

When data are collected irl a statistical study for only a portion or subset of all elements of interest we are using:

A sample

What type of curve you will obtain if you draw the death rates of ADULT males?

J shaped

Mean Deviation. Variance and Standard Deviation of the values 4. 4. 4, 4. 4. 4 is

0

Which of the following is not a graph of Quantitative Venable?

Piechart

For empirical rule approximately all observations fall within

X=2a

Let A and B are two dependent events such that P(B)=113. P(A/B)=1/2 and Pi B A).- 1'3 Find P(AnB).

1/6

If "6" is the leading digit in 647 then trailing digit will be:

47

The median of 7. 6. 4. 8. 2. 5. 11 is

6

When we smooth a frequency polygon, It becomes

Frequency curve

For a stem-and-leaf display

All of given option

For platykurtic distribution • b2 (moment ratio) mil be

Less than three

The Probability of a sure event is:

1

Ranking scale also include the properties of which scale,

Nominal scale

Frequency curve is.

Asymmetric to x axis

If data is collected in rupees like income. then aboslute measure of dispersion will be in the units of

Rupees

Which method is used for obtaining the relative frequencies?

Dividing the frequency by total number of frequency

When two dice are rolled What is the probability that total is at least 12

1/36

In a lottery there are 10 prizes and 25 blanks. A lottery is drawn at random What is the probability of getting a prize?

2/7

Which of the following is not an absolute measure of dispersion----------

Standard Deviation

A case, in which the third parites or witnesses are provided the information to the investigator is called?----------

Indirect investigstion

What is the median for the following data: 1,1,2,2,5,5,7,7,7?--------

7

Relationships among the averages ----------

AM>GM>HM

Half of the observations are always larger than..-------

Median

In case of a frequency distribution, the median is given by the formula --------

MEDIAN= l+h/f[n/2-c]

1. If Q1=62 and Q3=87, then the mid-quartile range will be-------

by the 4mula: (Q3+Q2)/2= 74.5

vulmshalp.com

Range is a/an ..... measure of dispersion----------.
Absolute.

1. A circle in which sectors represents various quantities is called
a. Histogram
b. Frequency Polygon
c. Pie Chart
d. Bar Chart

2. A graph of a cumulative frequency distribution is called
a. Ogive Curve
b. Frequency Polygon
c. Pie Chart
d. Bar Chart

3. A Histogram contains a set of
a. Adjacent Rectangles
b. Non-adjacent Rectangles
c. Adjacent Squares
d. Adjacent Triangles

4. In a Pie chart one can calculate the angles for each sector by the following formula
a. (Component part / Total) X 100
b. (Component part / Total) X Pi
c. (Total/Component part) X 360
d. (Component part/Total) X 360

5. Component bar charts are used when data is divided into
a. Parts
b. Groups
c. Circles
d. None of the above
Answer: b

6. A frequency polygon is constructed by plotting frequency of the class interval and the
a. The upper limit of the class
b. The lower limit of the class
c. Mid value of the class
d. None of the above

7. A frequency polygon is a closed figure of

0304-1659294

a. Two sides
b. Three sides
c. Many sides
d. None of these

8. De-cumulative frequency is presented by

a. More than Ogive
b. Less than Ogive
c. Equal to Ogive
d. None of these

9. In a histogram, the area of each rectangle is proportional to

a. The class mark of the corresponding class interval
b. The class size of the corresponding class interval
c. Frequency of the corresponding class interval
d. Cumulative Frequency of the corresponding class interval

10. A frequency polygon curve touches the x-axis

a. Yes
b. No
c. Some times
d. None of the above

11. Frequency curve is

a. Asymptotic to y axis
b. Non Asymptotic to y axis
c. Asymptotic to x axis
d. None of these

12. The end of month unit values for a mutual fund are given in rupees:
9.2, 9.5, 10, 9.3, 10.2, 10.5, 10.2, 11.1, 10.5, 10.5, 10.5 and 10.
The values shown are referred to as:

a. frequency distribution.
b. histogram.
c. raw data.
d. mode.

13. The age distribution of citizens enrolled in a scheme is

Ages	**Frequency**
21-30	500

0304-1659294

31-40	200
41-50	700
51-60	600

What type of graph is needed to illustrate the data as it is organised?

a. Histogram
b. Frequency Polygon
c. Less than Cumulative Frequency diagram
d. None of the above

14. Which of the following considerations for setting up classes in a frequency distribution is correct?

a. Class widths can be different
b. Classes should not overlap
c. Open ended classes only at extremes
d. The lower limit of the first class should not be an even multiple of the class width

15. Frequency distributions can be helpful means of organising and summarising quantitative data. What type of graph is usually used to accompany such data?

a. Bar Chart
b. Histogram
c. Scatter Diagram
d. Time series

16. What are the members in the right column of a frequency distribution table called?

a. Class frequency
b. Interval frequency
c. Ordinal frequency
d. Number frequency

17. A variable is any characteristic which can assume_____ values.

a. Different
b. Similar
c. Fixed
d. Assumed

18. A _____ variable is a variable whose values can theoretically take on an infinite number of values within a given range of values.

a. Continuous

0304-1659294

b. Discrete
c. Random
d. Both a and b

19. The magnitude of the class is the
a. The product of lower limit and upper limit
b. The sum of lower limit and upper limit
c. The difference of upper limit and lower limit
d. None of these

20. The value lying half way between the upper limit and lower limit of the class is:
a. Class interval
b. Mid point
c. Frequency
d. None of the above

21. The classes in which the lower limit or the upper limit is not specified are known as:
a. Open end classes
b. Close end classes
c. Inclusive classes
d. Exclusive classes

22. Classes in which upper limits are excluded from the respective classes and are included in the immediate next class are:
a. Open end classes
b. Close end classes
c. Inclusive classes
d. Exclusive classes

23. The number of observations in a particular class is called:
a. Width of the class
b. Class mark
c. Frequency
d. None of the above

24. If the class mid points in a frequency distribution of age of a group of persons are 25, 32, 39, 46, 53 and 60. The size of class interval is:
a. 5
b. 7
c. 8
d. 6

25. If the mid points of the classes are 16, 24, 32, 40, and so on, then the magnitude of the class interval is:

a. 8
b. 9
c. 7
d. 6

26. A pie diagram is also called:

a. Pictogram
b. Angular diagram
c. Line diagram
d. Bar diagram

27. The median of a frequency distribution is found graphically with the help of:

a. Histogram
b. Frequency curve
c. Frequency polygon
d. Ogive

28. The mode of a frequency distribution can be determined graphically by:

a. Histogram
b. Frequency curve
c. Frequency polygon
d. Ogive

29. The most commonly used device of presenting business and economic data is:

a. Pie diagrams
b. Pictograms
c. Bar diagrams
d. Line diagrams

30. Type of bar diagram is:

a. Pictogram
b. Sub divided diagram
c. Line diagrams
d. Pie diagram

0304-1659294

Dividing mean deviation by mean we get a pure number known as

Co-efficient of mean deviation*
Co-efficient
Co-efficient of quartile deviation
None of the above

Formula for Semi Interquartile Range is:

(Q3-Q1)/2*
(Q1+Q3)/2
(Q1-Q3)
(Q1+Q3)

Which scale will you use to measure the temperature?

Nominal scale
Interval scale*
Ratio scale
Ordinal scale

If Xo is the smallest value and Xm is the largest value in a data set then, range is defined by the relation:

Xo
Xm
Xm-Xo*
Xo-Xm

Half of the observations are always larger than:

Mean*
Median
Mode
Total

The difference between estimated value and the population value is called

Sampling Error
Non Random Error

0304-1659294

Non Sampling Error
Random Error*

The sum of squared deviations from mean is:

Maximum
Minimum
Zero*
Undefined

For the given data 20, 13, 27, 0, -8 G. M will be:
Select correct option:
Negative*
Positive
Zero
Undefined

What is the median for the following data: 1,1,2,2,5,5,7,7,7

1
2
5*
7
When the deviations (excesses and defects) from the true value tend to occur equally, it is called:

Unbiased error*
Biased error
Systematic error
Mistake

Pie chart consists of:

CIRCLE

0304-1659294

The dispersion which is calculated from all observed values is:
►**Standard deviation (Page 87)**
►Quartile deviation
►Rang
►Coefficient of Rang

For any number k …….1, at least 1 – 1/k2 of the data-values fall within k standard deviations of the mean:
►**Greater than 1 (Page 97)**
►Less than 1
►Greater or equal to 1
►Less or equal to 1

If Mean = 25 & S.D is 5 then C.V is
►100%
►25%
►**20% (Page 93)rep**
►10%
When E is an impossible event,then P(E) is:
►**0 (Page 146)**
►0.5
►1
►2

When two dice are rolled, the numbers of possible sample points are:
►6
►12
►24
►**36 (6*6=36)**

The correlation of coefficient lies between :
►0 to 1
► 0 *to* ∞
►**- 1 to +1 (Page 128)**
►+1 *to* ∞

How many elements are in the sample space of rolling one die:
►**6**
►12
►24
►36

When two coins are tossed the probability of at most one head is:
►1/4
►2/4
►**3/4**
►4/4

If *A* and *B* are mutually exclusive events then *P*(*A* or *B*) equals:
►*P*(*A*) + *P*(*B*) - *P*(*A* and *B*)
►*P*(*A*) * *P*(*B*)

0304-1659294

►**$P(A) + P(B)$ (Page 155)**
►$P(A|B) + P(B|A)$

Positive square root of variance of a distribution is:
►Rang
►Quartile deviation
►**Standard deviation (Page 91)**

The probability of drawing a king of spade from a pack of 52 cards is:

►1/4
►1/13
►1/26
►**1/52**

$^5C_5$ Equals :
►1
►5
►10
►25

we toss a coin , we get only:
►**1 outcome**
►2 outcomes
►3 outcomes
►4 outcomes

Standard deviation is affected by the change of_____:
►Origin & scale
►Origin only
►**Scale only** Click here for detail
►Not origin & scale

A die is rolled. What is the probability that the number rolled is greater than 2 and even:
►1/2
►1/3
►**2/3 (greater than 2 = 3,4,5,6 = 4 numbers , 4/6=2/3)**
►5/6

The probability of drawing any one spade card is:
►1/52
►4/52
►**13/52**
►52/52

multiplication theorem $P(A \cap B)$ equals:
►P(A) P(B)
►P(A) + P(B)
►**P(A) * P(B|A) (Page 159)**
►P(B\A) * P(B)

0304-1659294

The probability of drawing 'White' ball from a bag containing 4 red , 8 black and 3 white ball is
►0
►3/15
►1/12
►1/2

If *A* and *B* are mutually exclusive events then *P*(*A* or *B*) equals:
►*P*(*A*) + *P*(*B*) - *P*(*A* and *B*)
►*P*(*A*) * *P*(*B*)
►*P*(*A*) + *P*(*B*) **(Page 155)**
►*P*(*A*|*B*) + *P*(*B*|*A*)

The simultaneous occurrence of two events is called
►Prior probability
►Subjective probability not confirmed
►Conditional probability
►Joint probability

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

► Quartiles
► Deciles
► Percentiles
► Standard deviations

The height of student is 60 inch. This is an example of……?
►Continues data
►Qualitative data
►Categorical data
►Discrete data

Which of the statement is true regarding a sample?
►It is a part of population **(Page 13)**
►It must contain at least five observations
►It refers to descriptive statistics
►It produces true value

If all the values fall on the same straight line and the line has a positive slope then what will be the value of the correlation coefficient '**r**':
► $0 \leq r \leq 1$
► $r \geq 0$
► r = +1
► r=-1

What is the Standard Deviation of 7, 7, 7, 7, 7, 7, 7

0304-1659294

►49
►1
►0 Standard deviation will always be zero if all the values in data are same
►7

10! =…….

► 362880
► 3628800
► 362280
► 362800

If a player well shuffles the pack of 52 playing cards, then the probability of a black card from 52 playing cards is:

►1/52
► 13/52
►4/52
►26/52

In a regression line Y= a + bX, the value of the correlation coefficient will be zero if:

►Intercept a ≠ 0
►Intercept a = 0 (correct)
►Slope b = 0
►Slope b ≠ 0

The probability of drawing a 'jack card 'from 52 playing cards is:
►1/52
►4/52
►13/52
►26/52

Which dispersion is used to compare variation of two series?
► C.V. (Page 93)
► Q.D.
► M.D.
► S.D.

The probability of drawing a 'jack card 'from 52 playing cards is:
►1/52
►13/52
►4/52 rep
►26/52

In a regression line Y= a + bX, the value of the correlation coefficient will be zero if:

0304-1659294

► **Intercept a = 0 rep**
► Intercept a ≠ 0
► Slope b = 0
► Slope b ≠ 0

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

► Quartiles
► Deciles
► Percentiles
► **Standard deviations rep**

If all the values fall on the same straight line and the line has a positive slope, then what will be the value of the correlation coefficient '**r**':

► 0 ≤ r ≤ 1
► r ≥ 0
► **r = +1 (Page 129)**
► r=-1

If a=4 b=2 estimate line (i.e y=a+bx) and independent variable has value 3 the value of dependent variable

► 6
► 9
► **10 4+2(3)=10**
► 11

The number of ways in which 4 books can be arranged

► 4
► 6
► 12
► **24 (Page 142)**

The simultaneous occurrence of two events is called

► Descriptive probability
► Subjective probability
► Conditional probability
► **Joint probability**

When coin tossed we get only

►**1 outcome**
►2 outcomes
►3 outcomes
►4 outcomes

When mean is 25 and S.D is 5 then CV is

► 100%
► 25%
► **20%**
► 10%

A set that contains all possible outcomes of a system is known as

0304-1659294

- ► Finite Set
- ► Infinite Set
- ► **Universal Set (Page 134)**
- ► No of these

If X and Y are independent, then Var(X-Y) is equal to:

- ❖ $Var(X)-Var(Y)$
- ❖ $Var(X)+Var(Y)$
- ❖ $Var(X+Y)$
- ❖ Zero

A coin is tossed 3 times then, the number of sample points ii the sample space is:

- 3
- 8
- 6
- 4

What is the difference between a permutation and a combination.

►**In a permutation order is important and in a combination it is not**
►In a permutation order is not important and in a combination it is important
►A combination is based on the classical definition of probability
►A permutation is based on the classical definition of probability

What we consider in simple correlation analysis:
►Several independent variables
►**Strength of the association between two variables (Page 128)**
►Intercept with the X-axis
►Intercept with the *Y*-axis

If Y=bX, then variance of Y is

b*2 var(x)
var(x)
b var(x)
b square root var(x)

If f(x) is a continuous probability function, then P(X = 2) is:

1
0
1/2
2

3. Question # 3 of 10
In regression line Y=a+bX, Y is called:

0304-1659294

Dependent variable
Independent variable
Explanatory variable
Regressor

If A and B are mutually exclusive events with P (A) =0.25 and P (B) = 0.50, Then P (A or B) =……
Select correct option:
0.25
0.75
0.50
1

Symbolically, a conditional probability is:

P(AB)
P(A/B)
P(A)
P(AUB)

In a 52 well shuffled pack of 52 playing cards, the probability of drawing any one diamond card is
Select correct option:
1/52
4/52
13/52
52/52

Probability of a sure event is
Select correct option:
8
1
0
0.5

If Y=3X+5,then S.D of Y is equal to

9 s.d(x)
3 s.d(x)
s.d(x)+5
3s.d(x)+5

0304-1659294

The probability of drawing a red queen card from well-shuffled pack of 52 playing cards is

4/52
2/52
13/52
26/52

If P (B|A) = 0.25 and P (A and B) =0.20, then P (A) is

0.05
0.80
0.95
0.75

When a coin is tossed 3 times, the probability of getting 3 tails is

1/8
3/8
3/6
2/8

In how many ways can a team of 11 players be chosen from a total of 16 players?

4368(not confirmed)
2426
5400
2680

13. Question # 3 of 10

The standard deviation of c (constant) is

Select correct option:

c
c square
0
does not exist

14. Question # 4 of 10

If P (E) is the probability that an event will occur, which of the following must be false:

Select correct option:

P(E)= - 1

0304-1659294

P(E)=1
P(E)=1/2
P(E)=1/3

Question # 5 of 10
Let E and F be events associated with the same experiment. Suppose the E and F are independent and that P(E) = 1/4 and P(F) = 1/2 Then P(E U F) is:
Select correct option:
1/8
3/4
7/8
5/8

16. Question # 6 of 10
A student solved 25 questions from first 50 questions of a book to be solved. The probability that he will solve the remaining all questions is:
Select correct option:
0.25
0.5
1
0

17. Question # 7 of 10
If Y=bX, then variance of Y is
Select correct option:
b*2 var(x)
var(x)
b var(x)
b square root var(x)

The classical definition of probability assumes:
Select correct option:
Exhaustive events
Mutually exclusive events
Equally likely evens
Independent evens

In scatter diagram, the variable plotted along Y-axis is:
Select correct option:
Independent variable
Dependent variable
Continuous variable
Discrete variable

0304-1659294

Which of the following measures of dispersion are based on deviations from the mean? :

Variance

Standard deviation
Mean deviation

All of the these

What does it mean when a data set has a standard deviation equal to zero?

All values of the data appear with the same frequency.
The mean of the data is also zero.
All of the data have the same value.
There are no data to begin with.

A set of possible values that a random variable can assume and their associated probabilities of occurrence are referred to as _____.
Select correct option:

Probability distribution
The expected return
The standard deviation
Coefficient of variation

Which of the following can never be probability of an event?
Select correct option:

0
1
0.5
-0.5

24. The standard deviation of -1, -1, -1, -1 will be
Select correct option:

1
-1
0
Does not exist

0304-1659294

Which formula represents the probability of the complement of event A:

1 + P (A)
1 - P (A)
P (A)
P (A) -1

The Special Rule of Addition is used to combine:

Independent Events
Mutually Exclusive Events
Events that total more than 1.00
Events based on subjective probabilities

set which is the sub-set of every set is

Empty Set
Power Set
Universal Set
Super Set

E(4X + 5) =_____

12 E (X)
4 E (X) + 5
16 E (X) + 5
16 E (X)

When two dice are rolled the number of possible sample points is :

6
12
24
36

0304-1659294

If two events A and B are not mutually exclusive then

P (A or B) = P (A) + P (B) – P (A and B)

P (A or B) = P (A) + P (B)

P (A or B) = P (A) x P (B)

P (A or B) = P (A) + P (B)

Evaluate (10-4)!

1000
720
480
32

When E is an impossible event, then P(E) is:

0
1
2
0.5

When we toss a coin , we get only:
Select correct option:

1 outcome
2 outcome
3 outcome
4 outcome

For exhaustive events, the P(AUBUC) is equal to:
Select correct option:

P(A)
P(S)
P(A) * P(B)* P(C)
P(B)

A student solved 25 questions from first 50 questions of a book to be solved.
The probability that he will solve the remaining all questions is:
Select correct option:

0304-1659294

0.25
0.5
1
0

A set of possible values that a random variable can assume and their associated probabilities of occurrence are referred to as _____.
Select correct option:

Probability distribution
The expected return
The standard deviation
Coefficient of variation

If we roll a die then probability of getting a '6' will be

2/6

1/6

4/6

1

If P(A) = 0.45, P(B) = 0.35, and P(A and B) = 0.25, then P(A | B) is:

1.4
1.8
0.714
0.556

Which of the following is not a measure of central tendency?

Percentile

Quartile

Standard deviation

Mode

Random experiment can be repeated any no. of times under the…… conditions. :

0304-1659294

Different
Similar

The simultaneous occurrence of two events is called:
Select correct option:

Joint probability
Subjective probability
Prior probability
Conditional probability

In regression analysis, the variable that is being predicted is the

Dependent variable

Independent variable

Intervening variable

None of these

If any value in the data is zero, then it is not possible to have?
Hm
Two dice are thrown simultaneously. What is the probability of getting two numbers whose product is even?
3/4.
The variance of a sample of 81 observations equals 64 . The standard deviation of the sample equals
8
Which one of the following is less than mean for a symmetrical distribution:
4th
Variance is expressed in ..... units as the units of data set.
Square
According to Empirical rule, approximately how much values will fall within (Mean-3S.D, Mean+3S.D)?
100%
A tabular arrangement for classifying data into different groups is called:
Frequuency distribution
If we have mean=6,median =5 and standard deviation = 4 then the Pearson's Coefficient of Skewness will be:
0.75
What is the median for the following data:

0304-1659294

1,1,2,2,5,5,7,7,7
5
The classical definition of probability is not applicable when the assumption of ..... does not hold:
Mutually exclusive events

Which of the following method of skewness is a pure number/unitless?
bowleys
Sum of the absolute deviations of the values is least when deviations are taken from:
median
The population about which information is sought is called
Target population

In absolute measures of dispersion our answer is expressed in the ..... units as our original data set.
same
Which measure of central tendency takes into account the magnitude of scores?
median

In a probability distribution, the sum of the probabilities is equal to:
1
f the mean of 6 numbers is 41 than the sum of these numbers is
246
Positive correlation COEFFICIENT "r" will fall within the range:
0<r<1
The amount of hump of a distribution is called:
kurtois
From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?
756
Which of the following Measure of averages is affected by extreme (very small or very large) values in the data set?
Arithmetic mean

In the sequence of Five number summary which will be the last value:
xm

vulmshelp.com

vulmshelp.com

vulmshelp.com