- Question No. 1

For the price -quantity chart

Good	Base year (200)		Current year (2000)	
	Quantity	Price (in $)	Quantity	Price (in $)
1	20	20	30	50
2	40	30	50	60
3	60	40	70	70

the Laspeyres price index for current year is

Options :

1. 188
2. 180
3. 190
4. 184
5.

Answer : 190

- Question No. 2

For completely randomized design for k treatments and n observations, yif = response from the j^{th} unit receiving i^{th} treatment, $\sum i \sum j$ yij = y.. and $\sum^{ni}$ yij = yi. . Which of the following options is correct?

1. $\sum^{k} i=1 \sum^{ni} j=1 (yij - yi)^2$ represents sum of squares of due to error
2. $\sum^{k} i=1 (yi - y..)^2$ represents sum of squares due to treatments
3. $\sum^{k} i=1 \sum^{ni} j=1 (yij - y..)^2$ represents total sum of squares
4. $\sum^{k} i=1$ ni $(yij - yi)^2$ represents sum of squares due to treatments

Options :

1. 1
2. 2
3. 3
4. 4
5.

Answer : 2

- Question No. 3

Two data set of size 9 and 6 have standard deviation 3 and 4 respectively and arithmetic means 3 and 3 respectively. The standard deviation of combined data set of size 15 is

Options :

1. √(177/15)
2. √(175/15)
3. √(178/15)
4. √(176/15)
5.

Answer : √(177/15)

- Question No. 4

For the variables X, Y and Z, rXY = 0.80, rXZ = 0.64, rY Z = 0.79 , then square of multiple correlation coefficient $R^2_{X.YZ}$ is:

Options :

1. 0.53
2. 0.43
3. 0.64
4. 0.33

5.

Answer : 0.64

- Question No. 5

In a 3 races, 2 genders and 5 in each treatments group for two -way ANOVA, the degree of freedom for source of variation due to interaction, error and total respectively are

Options :

1. (2, 24, 29)
2. (6, 24, 29)
3. (6, 30, 30)
4. (2, 24, 30)
5.

Answer : (2, 24, 29)

- Question No. 6

A random sample of size 225 is drawn from the population of mean □and standard deviation □ The sample mean follows the distribution with mean 100 and standard distribution 4/3. The value of □and □are:

Options :

1. (100, 20)
2. (100, 18)
3. (100, 15)
4. (100, 24)
5.

Answer : (100, 20)

- Question No. 7

The probability of getting a total of 7 on two dice thrown together is:

Options :

1. 5/36
2. 7/36
3. 8/36
4. 6/36
5.

Answer : 6/36

- Question No. 8

Identify, from the following, the moment used as a measure of skewness?

Options :

1. Fourth moment
2. Third moment
3. Second moment
4. First moment
5.

Answer : Third moment

- Question No. 9

The six decile (D6) of 5, 3, 2, 6, 8, 4 is:

Options :

1. 5.15
2. 5.20
3. 5.30
4. 5.25
5.

Answer : 5.20

- Question No. 10

  The mode of the given data set is 12. The sum of the frequency on both sides of mode are 16. The skewness:

  Options :

  1. equal to 1
  2. equal to ±1
  3. equal to – 1
  4. does not exit
  5.

  Answer : does not exit

- Question No. 11

  If X and Y represent waiting time and service time of customers in shopping mall, have joint destiny f(x, y) = kx; 0 ≤ y ≤ x ≤ 1, then the value of k is

  Options :

  1. 3
  2. 1
  3. 4
  4. 2
  5.

  Answer : 3

- Question No. 12

  Which is not relative measures of skewness?

A $\frac{D_9-2D_5+D_1}{D_9-D_1}$

B mean − mode

C $\frac{(Q_3-Q_2)-(Q_2-Q_1)}{(Q_3-Q_1)}$

D $\frac{P_{90}-2P_{50}+P_{10}}{P_{90}-P_{10}}$

Options :

1. A
2. B
3. C
4. D
5.

Answer : B

- Question No. 13

For two items, tea (1 kg) and sugar (1 kg), the prices in the year 2019 were ₹100 and ₹50, respectively, whereas the prices in the year 2020 were ₹125 and ₹60, respectively. The value of Laspeyres price index is:

Options :

1. 125.33
2. 123.33
3. 122.33
4. 120.33
5.

Answer : 123.33

- Question No. 14

  Which of the following statements is INCORRECT?

  Options :

  1. Primary data are those that are collected for the first time.
  2. Primary data are original.
  3. Primary data are more reliable.
  4. Collecting primary data is not quite expensive both, in the terms of time and money.
  5.

  Answer : Collecting primary data is not quite expensive both, in the terms of time and money.

- Question No. 15

  The deseasonalised time - series data will have only trend (T), cyclical (C) and irregular (I) components and is expressed as:

  Options :

  1. (C.I/T) × 100
  2. (T.I/C) × 100
  3. (T.C.I) × 100
  4. (T.C/I) × 100
  5.

  Answer : (T.C.I) × 100

- Question No. 16

  For the ANOVA table

Source of variations	Sum of squares	Degrees of freedom
Between treatment	75	3
Error	48	16
Total	123	19

the F - statistics is

Options :

1. 8.60
2. 7.33
3. 8.99
4. 8.33
5.

Answer : 8.33

- Question No. 17

The mean deviation and coefficient of mean deviation of 5 observation are 1.2 and 0.4. If the sum of the first four terms is 10, then the fifth term is equal to:

Options :

1. 4.5
2. 5
3. 4
4. 5.5
5.

Answer : 5

- Question No. 18

The standard error of the given data 15, 5, 12, 10, 20, 4 is

Options :

1. √(43/3)
2. √(45/3)
3. √(44/3)
4. √(46/3)
5.

Answer : √(46/3)

- Question No. 19

If the sum of lower and upper qualities is 6 and quartile deviation is 1.5, then the value of coefficient of quartile deviation is

Options :

1. 0.7
2. 0.6
3. 0.5
4. 0.4
5.

Answer : 0.5

- Question No. 20

The 95% confidence interval of average age of accidents in any city during last year for a sample of size 100 with mean age 34.25 from population of standard deviation 10 is

Options :

1. [32.29, 36.21]
2. [32.29, 36.58]
3. [32.605, 36.895]

4. [32.92, 36.58]

5.

Answer : [32.29, 36.21]

- Question No. 21

If rp be partial correlation compound on sample rAB.c compound from sample of size n, the test statistic for significance testing is

Options :

1. 1

2. 2

3. 3

4. 4

5.

Answer : 4

- Question No. 22

For the following frequency distribution

Class :	3-5	5-7	7-9	9-11
Frequency:	1	4	2	1

the value of mode is:

Options :

1. 6.40

2. 6.20

3. 6.00

4. 6.25

5.

Answer : 6.20

- Question No. 23

If the mean and variance of a binomial distribution are 5 and 4, respectively, then the value of n is:

Options :

1. 25
2. 10
3. 20
4. 15
5.

Answer : 25

- Question No. 24

For an experiment we have the following data set: n = 4, $\sum X = a, \sum Y = 10, \sum XY = 21, \sum X^2 = 30, \sum Y^2 = 30$ the correlation coefficient is -0.8 then the value of a is:

Options :

1. 8
2. 7
3. 10
4. 9
5.

Answer : 10

- Question No. 25

The grouped data for the observation are as follows.

Class :	2-4	4-6	6-8

Frequency: 2 1 2

The population skewness:

Options :

1. is negative
2. is zero
3. Data is insufficient
4. is positive
5.

Answer : is zero

- Question No. 26

If each observation in a data set for number of employees in different divisions is doubled then the coefficient of quartile deviation:

Options :

1. is also doubled
2. remains same
3. is fourtimes of the original
4. is halved
5.

Answer : remains same

- Question No. 27

If the first, second, and third moment about the origin are 2, 8, and 18 respectively, then third moment about mean is

Options :

1. - 14

2. - 12

3. 14

4. 12

5.

Answer : - 14

- Question No. 28

For the variables X and Y, we collect 4 observations with $\sum X = 10, \sum Y = 14, \sum X^2 = 30, \sum Y^2 = 54, \sum XY = 31$ The regression line y on x is

Options :

1. y = 0.8x - 5.5

2. y = -0.8x - 5.5

3. y = -0.8x - 5.5

4. y = -0.8x + 5.5

5.

Answer : y = -0.8x + 5.5

- Question No. 29

The median of the following observations 10, 11, 9, 12, 10,10, 12, 10, 9,11 is:

Options :

1. 11

2. 9

3. 8

4. 10

5.

Answer : 10

- Question No. 30

  For the two variables X and Y, the following observations are tabulated

  X: 3 4 4

  Y: 2 1 2

  The spearman's correlation coefficient is:

  Options :

  1. -0.125
  2. -0.120
  3. -0.100
  4. -0.110
  5.

  Answer : -0.125

- Question No. 31

  If first, second, and third moment about origin are 1, 6, and 15 respectively, then Karl Pearson beta coefficient of skewness is

  Options :

  1. 1/5
  2. 1/125
  3. 1/625
  4. 1/25
  5.

  Answer : 1/125

- Question No. 32

If mean and median of the distribution are 12 and 21, then the distribution

Options :

1. is negatively skewed
2. is positively skewed
3. can't be determined for its skewness
4. is not skewed
5.

Answer : is negatively skewed

- Question No. 33

In a two-way ANOVA table

Source of Variation	Degree of Freedom	Sum of squares	Mean sum of squaures	F
Due to Level A	2	294	147	F_A
Due to Level B	2	6	3	F_B
Due to error	4	12	3	
Total	x	312		

the value of x, FA, FB are:

Options :

1. (8,49,3)
2. (9,49,1)
3. (8,49,1)
4. (9,49,3)
5.

Answer : (8,49,1)

- Question No. 34

The median of following observations 8, 9, 10, 8, 8, 10, 8, 9 is

Options :

1. 8.0
2. 8.2
3. 8.4
4. 8.5
5.

Answer : 8.0

- Question No. 35

For the ANOVA which of the following options is INCORRECT.

1. Null hypothesis H0 : □1 = □2 = ... = □n
2. F -ratio belongs to [−∞, ∞]
3. Alternative hypothesis H1 : At least one population mean is different from one another
4. Variance are compared in F ratio to determine mean differences are significantly bigger than chance

Options :

1. 1
2. 2
3. 3
4. 4
5.

Answer : 2

- Question No. 36

The Pearson's correlation coefficient between following observation

X: 1 2 3 4

Y: 3 4 2 1

is - 0.8. If each observation of X is halved and of Y is doubled, then Pearson's correlation coefficient equals to

Options :

1. -0.81
2. -0.79
3. -0.80
4. -0.82
5.

Answer : -0.80

- Question No. 37

For the ANOVA which option is wro1ng?

Options :

1. Total sum of square = Total vaiation in data
2. Mean sum of square between group = (sum of square between group/degrees of freedom between group)
3. F = (Mean sum of square within group/Mean sum of square between group)
4. Total degree of freedom = between degree of freedom + within degree of freedom
5.

Answer : F = (Mean sum of square within group/Mean sum of square between group)

- Question No. 38

From standard pack of 52 cards, 3 cards are drawn at random without replacement. The probability of drawing a king, a queen and a jack in order is

Options :

1. 32/16575

2. 4/16575

3. 16/16575

4. 8/16575

5.

Answer : 8/16575

- Question No. 39

If the second and third moment about the origin are 8 and 18 and the third moment about mean is -14 , then the first moment about the origin is:

Options :

1. 2

2. 1

3. 3

4. 1.5

5.

Answer : 2

- Question No. 40

For the random variable X with probability density function $f(x) = (x-3)^2/5$; x = 3, 4, 5, the variance of X is:

Options :

1. 2/25

2. 4/5

3. 4/25

4. 2/5

5.

Answer : 4/25

- Question No. 41

  If A and B are mutually exclusive, the general addition rule is:

  Options :

  1. P(A □B) = P(A) + P(B) + P(A □B)
  2. P(A + B) = P(A) + P(B)
  3. P(A □B) = 0
  4. P(A □B) = P(A) + P(B)
  5.

  Answer : P(A □B) = P(A) + P(B)

- Question No. 42

  Two random variables X and Y are said to be independent if:

  Options :

  1. EXY = Y(EX)
  2. EXY = XE(Y)
  3. EYX = E(X)E(Y)
  4. E(XY) = E(X) + E(Y)
  5.

  Answer : EYX = E(X)E(Y)

- Question No. 43

  The value of k so that following is probability mass function

  X: -2 -1 0 1 2 3

  P(X=x):2k 3k 4k 3k 2k k

  is

Options :

1. 1/16
2. 2/15
3. 1/15
4. 1/14
5.

Answer : 1/15

- Question No. 44

If moment generating function of discrete random variable X is $(q + pe^t)^n$, then $E(X^2)$ equals to

Options :

1. np(np + q)
2. nq(p + nq)
3. np(p + nq)
4. nq(np + q)
5.

Answer : np(np + q)

- Question No. 45

The standard deviation of Y is double of standard deviation of X. The correlation coefficient between X and Y is 0.5. The acme angle between lines of regression is

Options :

1. Arctan (4/5)
2. Arctan (3/5)
3. Arctan (1/5)
4. Arctan (2/5)
5.

Answer : Arctan (3/5)

- Question No. 46

If mean and mode of the distribution is 32 and 21, then the distribution:

Options :

1. is negatively skewed
2. is not skewed
3. is positively skewed
4. cannot be determined
5.

Answer : is positively skewed

- Question No. 47

To estimate the average work experience of MBA students at a management institute, five students are selected at random from each type of background, say commerce, science and engineering. This type of sampling is called:

Options :

1. stratified sampling
2. cluster sampling
3. systematic sampling
4. simple random sampling
5.

Answer : stratified sampling

- Question No. 48

Which of the following options is correct when data is classified on the basis of attributes?

Options :

1. Geographical classification
2. Qualitative classification
3. Temporal classification
4. Geological classification
5.

Answer : Qualitative classification

- Question No. 49

If the third quartile of the following data set 7,10,7,8,9 is 9.5, then the value of quartile deviation is:

Options :

1. 7.00
2. 1.25
3. 2.75
4. 4.25
5.

Answer : 1.25

- Question No. 50

The arithmetic mean of the following frequency distribution of number of members in family in the society

X:	3	5	6	8	9	10
Frequency:	1	4	2	1	3	2

is

Options :

1. 6.923
2. 7.923
3. 5.923

4. 4.923

5.

Answer : 6.923

- Question No. 51

The prices (in Rs.) for the commodity ABC,XYZ, MNO, and IJK in base year (2020) are 20, 18, 12, 24 and in current year (2022) are 25, 22, 15, 28 respectively. The value of price index by simple aggregative method is

Options :

1. 125.62
2. 115.62
3. 111.62
4. 121.62
5.

Answer : 121.62

- Question No. 52

The mean and median of the distribution is 12 and 15. Then the mode equals to:

Options :

1. 18
2. 24
3. 21
4. 15
5.

Answer : 21

- Question No. 53

The fair dice is rolled 15 times and face value are noted

Face Value:	1	2	3	4	5	6
# of times:	3	0	4	2	5	1

The empirical probability of getting a number greater than 4 when a dice is rolled, is

Options :

1. 1/2
2. 0
3. 1
4. 2/5
5.

Answer : 2/5

- Question No. 54

If the population kurtosis of the observations 16,12,6,2,4,10 is 1.7414, then population kurtosis of the 8,6,3,1,2,5 is

Options :

1. 0.8707
2. 0.43535
3. 3.4828
4. 1.7414
5.

Answer : 1.7414

- Question No. 55

Recession in industry is associated with the:

Options :

1. cyclical component
2. irregular component

3. trend

4. seasonal component

5.

Answer : cyclical component

- Question No. 56

Which of the following correctly completes the given statement?

Index number helps in:

(I) determining the cost of living

(II) fixing the dearness allowances

(III) reflecting the real income

Options :

1. All I, II and III

2. Only I and II

3. Only II and III

4. Only I and III

5.

Answer : All I, II and III

- Question No. 57

Which of the following options is INCORRECT?

Options :

1. For k treatments and N observations, the degree of freedom of the ratio of mean sum of square of treatments and residual mean sum is N - 1 and k – 1

2. For k treatments and N observations the degree of freedom of variation within groups is N – k

3. Fork treatments and N observations the degree of freedom of total variation is N – 1

4. Fork treatments and N observations, the degree of freedom of variation between groups is k – 1

5.

Answer : For k treatments and N observations, the degree of freedom of the ratio of mean sum of square of treatments and residual mean sum is N - 1 and k – 1

- Question No. 58

Which option is incorrect?

Options :

1. mean sum of square of total = mean sum of square of treatment + mean sum of square of error
2. sum of square of total = sum of square of treatment + sum of square of error
3. For k treatments and N observations, the degree of freedom of variation within group is N – k
4. Fork treatments and N observations, the degree of freedom of, variation between group is k – 1
5.

Answer : mean sum of square of total = mean sum of square of treatment + mean sum of square of error

- Question No. 59

If random variable X follows binomial distribution with parameter n and p with mean 15 and variance 10, then the value of mode is

Options :

1. 46/3
2. 48/3
3. 49/3
4. 47/3
5.

Answer : 46/3

- Question No. 60

If the first, second and third moment about origin are 2, 8 and 14. respectively, then Karl Pearson gamma coefficient of skewness y1 is:

Options :

1. 0.25
2. -2.25
3. -0.25
4. -1.25
5.

Answer : 0.25

- Question No. 61

If Z follows standard normal distribution with mean 0 and variance 1, then Z^2 follows:

Options :

1. Chebyshev distribution with degree of freedom 1
2. normal distribution with mean 0 and variance 1
3. 0 gamma distribution with □ = 1 and □ = 1
4. beta distribution with □ = 1 and □ = 1
5.

Answer : Chebyshev distribution with degree of freedom 1

- Question No. 62

Two data sets of sizes 6 and 9 have standard deviation 3 and 4, respectively, and arithmetic means 4 and 4, respectively. The standard deviation of combined data set of size 15 is:

Options :

1. √(72/5)
2. √(68/5)
3. √(70/5)

4. √(66/5)

5.

Answer : √(66/5)

- Question No. 63

A physical instructor claims that the mean weight of students in school is greater than 82 kg with standard deviation 20. If a sample of size 81 students is selected with mean weight of 90. The test statistic equals to

Options :

1. z = 3.0

2. z = 3.6

3. z = 3.2

4. z = 2.4

5.

Answer : z = 3.6

- Question No. 64

If moment generating function of continuous random variable X is (□/□−t) ;t 3) equals to:

Options :

1. 4/□^3

2. 8/□^3

3. 6/□^3

4. 2/□^3

5.

Answer : 6/□^3

- Question No. 65

For frequency distribution presentation , which option is wrong.

Options :

1. Bar graph presents score categories that are measured from a nominal or an ordinal scale
2. In polygon, an additional line is not drawn at each end to bring the graph back to a zero frequency
3. In a histogram, a bar is centered above each score (or class interval) so that the height of the bar corresponds to the frequency
4. The smooth curve emphasizes the fact that the distribution is not showing the exact frequency for each category.
5.

Answer : In polygon, an additional line is not drawn at each end to bring the graph back to a zero frequency

- Question No. 66

The arithmetic mean of the following frequency distribution of number of accidents X on week working days is:

X:	2	4	6	8	10	12
Frequency:	3	4	2	1	4	2

Options :

1. 5.625
2. 4.625
3. 6.625
4. 7.625
5.

Answer : 6.625

- Question No. 67

Which option is WRONG?

Options :

1. Secondary data requires less time and money than primary data

2. Secondary data is original

3. Secondary data is less reliable and less suitable than primary data

4. Seconda1y data refer to those data that have already been collected by some other person.

5.

Answer : Secondary data is original

- Question No. 68

If P(A) = 0.4; P(B □A) = 0.05; P(C □A) = 0.04; P(B □A □C) = 0.09; P(C □A □B) = 0.0 7, then the probability of occurrence of all events equals to:

Options :

1. 0.14

2. 0.0014

3. 0.014

4. Given information is incomplete

5.

Answer : 0.0014

- Question No. 69

If the population skewness of the observations 8,6,3, 1,2,5 is 0.233, then the population skewness of 16,12,6,2,4,10 is:

Options :

1. 0.1165

2. 0.466

3. 0.233

4. 0.932

5.

Answer : 0.233

- Question No. 70

If the first, fifth and ninth decile of frequency distribution xi fi are 3,10,16, respectively, then Kelly's coefficient of skewness is:

Options :

1. -(2/13)
2. -(3/13)
3. -(4/13)
4. -(1/13)
5.

Answer : -(1/13)

- Question No. 71

For the frequency distribution of income (in lakh) of the employees in factory

Class	1.5-2.5	2.5-3.5	3.5-4.5	4.5-5.5
Frequency:	1	3	4	2

the value of mode is

Options :

1. 3.333
2. 3.933
3. 3.833
4. 3.533
5.

Answer : 3.833

- Question No. 72

These seventh decile (D7) of data set 4, 3, 10, 9, 1 is

Options :

1. 8.6
2. 8.8
3. 8.9
4. 8.7
5.

Answer : 8.8

- Question No. 73

For the distribution

X:	1	0	1
P(x):	0.3	0.5	0.2

the third factorial moment is

Options :

1. 1.8
2. -0.3
3. -1.8
4. 0.3
5.

Answer : -1.8

- Question No. 74

If the difference between the rank of the 4 observations are 2.5, 0.5, -1.5, -1.5, then Spearman's rank correlation coefficient equals to:

Options :

1. -0.1
2. 0.1
3. -0.2
4. 0.2
5.

Answer : -0.1

- Question No. 75

X1 and X2 represent number of occurrences of event A and 8 that follow Poisson distribution with mean rate □1 and □2 , If Y1 and Y2 are inter-occurrence times of event A and B, then min(Y1, Y2) follows

1. Exponential distribution with mean rate min (□1, □2)
2. Exponential distribution with mean rate (□1 + □2)
3. Poisson distribution with mean rate (□1 - □2)
4. Poisson distribution with mean rate (□1 + □2)

Options :

1. 1
2. 2
3. 3
4. 4
5.

Answer : 2

- Question No. 76

For the distribution with unknown □

$$f(x,\theta) = \begin{cases} \frac{1}{\theta}; & 0 \le x \le \theta \\ 0, & elsewhere \end{cases}$$

We set the testing of hypothesis H0 : □ = 1 vs H1 : □ = 2. When the critical region X ≥ 0.4, the value of probability of type-II error is:

Options :

1. 0.25
2. 0.30
3. 0.24
4. 0.20
5.

Answer : 0.20

- Question No. 77

For the production data

Year:	1	2	3	4	5	6
Production:	25	95	55	94	25	75

the third 3-year simple moving average is:

Options :

1. 56
2. 59
3. 57
4. 58
5.

Answer : 58

- Question No. 78

The grouped data for the observations are

Class: 1-3 3-5 5-7

Frequency: 2 1 2

The population skewness

Options :

1. cannot be computed
2. is zero
3. is positive
4. is negative
5.

Answer : is zero

- Question No. 79

For the data set

X: 1 2 3 4

Y: 4 5 3 2

the regression coefficient bxy (y on x) equals to:

Options :

1. -0.86
2. 0.86
3. -0.8
4. 0.8
5.

Answer : -0.8

- Question No. 80

  The value of a and b so that the following is probability mass function

  X: 0 1 2

  P(X =x): 3a 3b 4b

  with mean 1.1, is:

  Options :

  1. (0.1, 0.1)
  2. (0.2, 0.1)
  3. (0.2, 0.2)
  4. (0.1, 0.2)
  5.

  Answer : (0.1, 0.1)

- Question No. 81

  If A,B and C are arbitrary events, then P(A □B □C) equals to:

  Options :

  1. P(A)P(B □A)P(C □A □B)
  2. P(A)P(A □B)P(A □B □C)
  3. P(A)P(B)P(C)
  4. P(A) + P(B) + P(C)
  5.

  Answer : P(A)P(B □A)P(C □A □B)

- Question No. 82

  If the odds in favour of any random event A are 5 : 6, then the odds against the event are:

Options :

1. 5 : 11
2. 6 : 5
3. 11 : 6
4. 6 : 11
5.

Answer : 6 : 5

- Question No. 83

Which of the following is the most relevant for deriving a point estimate?

Options :

1. Confidence desired
2. Population size
3. Sample size
4. Variability in the population
5.

Answer : Sample size

- Question No. 84

For the cumulative distribution function

$$F(x) = \begin{cases} 0; & x < -1 \\ \frac{1}{2}(x+1)^2; & -1 \le x \le 0 \\ 1 - \frac{(1-x)^2}{2}; & 0 \le x \le 1 \\ 1; & 1 < x < \infty \end{cases}$$

the upper quartile point is

Options :

1. 1 - √0.25
2. 1 - √0.5
3. 1 + √0.5
4. 1 + √0.25
5.

Answer : 1 - √0.5

- Question No. 85

For ANOVA table

Source of Variation	Sum of squares	Degree of Freedom
Between treatment	45	3
Error	32	16
Total	99	19

the F - statistics is:

Options :

1. 7.4
2. 7.2
3. 7.3
4. 7.5
5.

Answer : 7.5

- Question No. 86

If each observation is halved then the coefficient of quartile deviation

Options :

1. is also halved
2. is doubled
3. remains same
4. is one-fourth of original
5.

Answer : remains same

- Question No. 87

If the first quartile of data set 8,10,8,7,9 is 7.5, then the value of quartile deviation is

Options :

1. 1.0
2. 7.5
3. 2.5
4. 9.5
5.

Answer : 1.0

- Question No. 88

The interquartile range excludes ___ of the values.

Options :

1. 100%
2. 25%
3. 75%
4. 50%
5.

Answer : 50%

- Question No. 89

For the frequency distribution of X number of grammatical mistakes per line is as follows.

X: 0 2 4

P(x): 0.5 0.3 0.2

The third factorial moment of X is:

Options :

1. 3.6
2. 2.8
3. 3.2
4. 4.8
5.

Answer : 4.8

- Question No. 90

If price-quantity are related for base year (0) and current year (1) are

$\sum$: p0q0 = 260,$\sum$: p1q0 = 395,$\sum$: p0q1 = 264,$\sum$: p1q1 = 422, then Marshall Edgeworth price index equals to

Options :

1. 145.92
2. 175.92
3. 165.92
4. 155.92
5.

Answer : 155.92

- Question No. 91

Which one is not non-probability sample method

Options :

1. Cluster sampling
2. Quota sampling
3. Purposive sa1npling
4. Snowball sampling
5.

Answer : Cluster sampling

- Question No. 92

If A and B are manually exclusive events such that P(A)P(B) > 0 , then which option is correct?

Options :

1. A and B are not independent
2. B □A
3. A □B
4. A and B are independent
5.

Answer : A and B are not independent

- Question No. 93

Which of the following is an example of using a sample to make inference about a population?

Options :

1. Pre-election poll by media
2. Assembly elections
3. Census
4. Statistics of a cricket player in one-day matches
5.

Answer : Pre-election poll by media

- Question No. 94

If r and R denote correlation and multiple correlation coefficient for the data set for X1, X2 and X3 . Which option is correct?

Options :

1. r12 = 0.24, r13 = 0.22, r23 = 0.23, R1.23 = 0.21
2. r12 = 0.21, r13 = 0.22, r23 = 0.23, R1.23 = 0.20
3. r12 = 0.69, r13 = 0.22, r23 = 0.23, R1.23 = 0.21
4. r12 = 0.69, r13 = 0.22, r23 = 0.23, R1.23 = 0.69
5.

Answer : r12 = 0.69, r13 = 0.22, r23 = 0.23, R1.23 = 0.69

- Question No. 95

Which option is incorrect for the component of ti.me series.

Options :

1. A non-seasonal cycle is a repetitive, possibly unpredictable, pattern in the series values
2. A trend is a gradual upward or downward shift in the level of the series
3. A sudden temporary shift is referred as pulse
4. Shifts in the level of a time series that cannot be explained are referred to as seasonal cycles
5.

Answer : Shifts in the level of a time series that cannot be explained are referred to as seasonal cycles

- Question No. 96

Which one is not basis of classification of data.

Options :

1. Temporal classification
2. Qualitative classification
3. Geological classification
4. Geographical classification
5.

Answer : Geological classification

- Question No. 97

The purchasing power of money is equal to:

Options :

1. 1/√price index number
2. √price index number
3. (1/price index number)^2
4. 1 / price index number
5.

Answer : 1 / price index number

- Question No. 98

Using the method of semi-averages, secular trend is measured when:

Options :

1. trend is symmetric about the mean
2. time series comprises even number of values
3. trend is linear
4. time series is based on annual values
5.

Answer : trend is linear

- Question No. 99

  The mean and median of the distribution are 10 and 11 respectively, then the mode equals to

  Options :

  1. 18
  2. 14
  3. 20
  4. 17
  5.

  Answer : 17

- Question No. 100

  Fundamental principles of design of experiment are

  (I) Randomization

  (II) Replication

  (III) Local control

  Which option is correct?

  Options :

  1. Onl (II) and (III)
  2. Onl (I) and (III)
  3. All (I), (II) and (III)
  4. Onl (I) and (II)
  5.

  Answer : All (I), (II) and (III)