

Section I: Statistics

- Q:-1 A committee of 4 people be chosen out of 8 people in ways.
 A) 50 B) 60 C) 70 D) 80 E) None of above
- Q:-2 National Identity card registration system is a source of
 A) Primary data B) Grouped data C) Secondary data
 D) Un official E) None of above
- Q:-3 If f_0 and f_c are identical then value of chi-square would be.....
 A) 1 B) 0 C) >0 D) <0 E) None of above
- Q:-4 The measure of dispersion are changed by the change of
 A) Origin B) Scale C) Algebraic sign
 D) Both A and B E) None of above
- Q:-5 If third moment about mean i.e. $m_3 = 0$ then the distribution is
 A) Symmetrical B) Positively skewed C) Negatively skewed
 D) Asymmetrical (E) None of above
- Q:-6 The degree of freedom in test of independence is:
 A) $(r-1)$ B) $(c-1)$ C) $(r-1)(c-1)$
 D) $(r-1)(c^2-1)$ E) None of above
- Q:-7 β is the probability of committing:
 A) Type-I error B) Type-II error C) General error
 D) Probable error E) None of above
- Q:-8 If A and B are two events which have no point in common, the events A and B are
 A) Complementary to each other B) Independent
 C) Mutually exclusive D) Dependent E) None of above
- Q:-9 The probability of the intersection of the two mutually exclusive events is always:
 A) Infinity B) Zero C) One
 D) None of above E) All of the above
- Q:-10 Two random variables X and Y are said to be independent, if:
 A) $E(XY)=1$ B) $E(XY)=0$ C) $E(XY)=E(X)E(Y)$
 D) $E(XY)=\text{any constant value}$ E) All of the above
- Q:-11 If the values are of equal importance the index numbers are called
 A) Weighted B) Un weighted C) Composite
 D) Value index E) None of the above
- Q:-12 The general purchasing power of the currency of a country is determined by
 A) Retail price index B) Whole sale price index
 C) Composite index D) Volume index E) None of the above
- Q:-13 The regression equation always passes through
 A) (\bar{X}, \bar{Y}) B) (a, b) C) (X, Y)
 D) (X, \bar{Y}) E) (X, Y)

- Q:-14 If X is a random variable with its mean \bar{X} , the expression $E(X - \bar{X})^2$ represents:
 A) The variance of X B) Second central moment
 C) Standard deviation of X D) Both A and B E) None of above
- Q:-15 If X is a random variable having its p.d.f $f(x)$, then $E(X)$ is :
 A) Arithmetic mean B) Geometric mean C) Harmonic mean
 D) First quartile E) mode
- Q:-16 If $\sum (X - \bar{X})(Y - \bar{Y})$ is zero the correlation is
 A) Weak negative B) High negative C) High positive
 D) Weak positive E) None of above
- Q:-17 A measure of the degree of relation between two quantitative variables is
 A) Regression B) Correlation C) Both A and B
 D) Attribute E) None of above
- Q:-18 Increase in the number of patients in the hospital due to heat stroke
 A) Secular trend B) Irregular trend C) Seasonal variation
 D) Cyclical variation E) None of above
- Q:-19 If $X \sim N(\mu, \sigma^2)$, then the point of inflexion of normal curve are:
 A) $\pm \mu$ B) $\mu \pm \sigma$ C) $\sigma \pm \mu$
 D) $\pm \sigma$ E) None of above
- Q:-20 Number of possible samples of size n from a population of size N units with replacement is:
 A) N^n B) n^N C) n!
 D) Infinity E) Zero
- Q:-21 Probability of drawing a unit from each selection remain same in:
 A) SRSWOR B) SRSWR C) Both A and B
 D) None of the above E) All of the above
- Q:-22 The best fitting trend is one in which the sum of squares of residuals is
 A) Negative B) Least C) Zero
 D) Maximum E) One
- Q:-23 Statistics deals with drawing conclusions and making decisions about any population parameter, on the basis of sample data is called _____
 A) Descriptive B) Inferential C) Theoretical
 D) Parametric E) All of the above
- Q:-24 The voice of singers in a music concert is
 A) Qualitative B) Quantitative C) Both A and B
 D) Not a variable E) None of above
- Q:-25 The errors in survey other than sampling errors are called:
 A) Formula errors B) Non sampling errors C) Planning errors
 D) Typing errors E) None of the above
- Q:-26 Sampling is a way of selecting _____
 A) Sample B) Population C) Census

- D) All of the above E) None of the above
- Q:-27 Usually _____ is used to graph binomial distribution.
A) Histogram B) Bar chart C) Pie chart
D) None of these E) All of these
- Q:-28 For any Bernoulli trial $q+p=$
A) 0 B) 10 C) 1 D) 2 E) infinity
- Q:-29 Correlation is the degree of _____ between variables
A) Co variation B) Interdependence C) Regression
D) Relationship E) Both B and D
- Q:-30 The height of a person is
A) Statistics B) Numerical value C) Recorded data
D) Both A and B E) None of above
- Q:-31 Error of measurement is of _____ types
A) One B) Two C) Three D) Four E) Five
- Q:-32 The mean of the binomial distribution is :
A) nt B) np C) nq D) npq E) None of these
- Q:-33 Area under the normal curve is
A) Unity B) Zero C) Negative
D) Infinity E) All of the above
- Q:-34 Complete enumeration in sampling is called.....
A) Census B) Sample survey C) Pilot survey
D) None of these E) All of these
- Q:-35 Sample mean is an estimator for :
A) Population proportion B) Population variance C) Population mean
D) None of these E) All of these
- Q:-36 What is the standard deviation of a sampling distribution called?
A) Sampling error B) Sample error C) Standard error
D) Simple error E) All of these
- Q:-37 When the regression line passes through the origin then
A) Intercept is zero B) Regression coefficient is zero
C) Correlation is zero D) Slope is zero E) None of above
- Q:-38 If all the actual and estimated values of Y are on the regression line, the sum of squares of error will be
A) Zero B) Minimum C) Maximum
D) Unity E) None of the above
- Q:-39 Increased demand of admission in the subject of computer in Pakistan is
A) Secular trend B) Cyclical trend C) Seasonal trend
D) Irregular trend E) None of above
- Q:-40 Which one of the following variables is considered to be continuous?
A) Monthly income of an employ B) Number of plants in a garden

- C) Shoe size of college teachers D) Religion preference
E) Number of flowers
- Q:-41 _____ are the values that mark the boundaries of the confidence interval.
A) Confidence intervals B) Confidence limits C) Levels of confidence
D) Margin of error E) None of above
- Q:-42 The rejection and non rejection regions are divided by the
A) Rejection value B) Dividing point C) Critical value
D) Point of no return E) All of the above
- Q:-43 A hypothesis may be classified as
A) Simple B) Composite C) Null
D) All of the above E) None of the above
- Q:-44 The shape of the normal curve is
A) J shaped B) U shaped C) Bell shaped
D) t shaped E) none of these
- Q:-45 Coefficient of association lies between:
A) -1 to +1 B) 0 to 1 C) -1 to 0
D) None of these E) All of these
- Q:-46 Chi square distribution is a distribution
A) Symmetric B) Positively skewed C) Negatively skewed
D) Skewed E) None of these
- Q:-47 Which one is the type of the data ?
A) Quantitative B) Qualitative C) Temporal
D) Spatial E) All of the above
- Q:-48 Mean deviation is minimum when it is calculated from
A) Mean B) Mode C) Median
D) Geometric mean E) Harmonic mean
- Q:-49 If for the set of data the first and the second moment about the value 20 are -2 and 15 respectively then the variance is equal to
A) 15 B) 17 C) 11 (D) 19 E) 20
- Q:-50 Fisher's Ideal index No confirms
A) Only time reversal test B) Factor reversal test
C) Both time and factor reversal test D) All the three test
E) None of above
- Q:-51 Relationship between two attributes is called
A) Correlation B) Association C) Independence
D) Dis-association E) None of these
- Q:-52 t-distribution has _____ parameter
A) One B) Two C) Three D) Four E) Five
- Q:-53 A sample is normally _____ than population
A) Neither smaller nor larger B) Larger C) Smaller
D) Equal and larger E) All of these

- Q:-54 Variance of the standard normal variate is
 A) Zero B) One C) Infinity D) Negative E) Fraction
- Q:-55 A class width is
 A) The difference between the two limits.
 B) The difference between the values of the upper and lower class boundaries.
 C) The difference between the largest and smallest observations in the data.
 D) Difference between the first and last values of X.
 E) All of above
- Q:-56 The graph that displays the data by using straight lines that connect points for the frequencies at the midpoints of the classes is called _____.
 A) Histogram B) Historigram C) Ogive
 D) Frequency polygon E) Component bar chart
- Q:-57 In normal distribution M.D = _____ $4/5 \sigma$
 A) Less than B) Greater than C) Equal
 D) None of these E) All of these
- Q:-58 Binomial random experiment consists of n _____ trials
 A) Dependent B) Independent C) Mutually exclusive
 D) Joint E) None of these
- Q:-59 A statistical table has at least
 A) Five parts B) Four parts C) Three parts
 D) Two parts E) Ten parts
- Q:-60 The H.M of two no's "a" and "b" is
 A) $a+b/2$ B) $2ab/a+b$ C) \sqrt{ab}
 D) $a+b$ E) ab
- Q:-61 The lack of uniformity is called
 A) Symmetry B) Dispersion C) Skewness
 D) Kurtosis E) None of above
- Q:-62 Discrete variable assumes _____ numbers of values.
 A) Unlimited B) limited C) Infinite
 D) None of these E) All of these
- Q:-63 If X is a continuous random variable and p(x) its p.d.f then $P(X=24)=\dots\dots\dots$
 A) One B) Zero C) Negative
 D) 4.5 E) None of these
- Q:-64 Probability is a measure of:
 A) Uncertainty B) Certainty C) Surety
 D) None of these E) All of these
- Q:-65 If Laspeyre's index=105.4 and Paasche's index=103.2, then Fisher's index No= ____
 A) 104.5 B) 04.3 C) 105.3
 D) 110.3 E) 106
- Q:-66 The measure of dependence of one random variable upon another non random variable is called
 A) Correlation B) Association C) Regression
 D) Attribute E) All of above

- Q:-67 When regression line passes through origin then 'a' is
A) Zero B) Negative C) Positive
D) Unity E) Hundred
- Q:-68 Correlation coefficient and regression coefficient have
A) Same sign B) Opposite signs C) Always positive
D) Always negative E) None of above
- Q:-69 Increased demand of crockery and tent service on Sunday is
A) Trend B) Seasonal C) Cyclical
D) Irregular E) None of above
- Q:-70 A quantitative variable whose values are countable is called
A) Categorical variable B) Continuous variable C) Discrete variable
D) Random variable E) None of these