

- Q:-13 A histogram is:
 A) A frequency graph B) A time series graph
 C) A graph-plotting mean against standard deviation
 D) A correlative frequency chart
- Q:-14 In a set of observations the variance is 50. All the observations are increased by 20 %. The variance of the increased observations will become.
 A) 60 B) 72
 C) $100 + 20 = 120$ D) no change
- Q:-15 If standard deviation of the values 2, 4, 6, 8 is 2.236, then standard deviation of the values 4, 8, 12, 16 is:
 A) 0 B) 4.472 C) 4.236 D) 2.236
- Q:-16 $\text{Var}(X) = 4$ and $\text{Var}(Y) = 9$. If X and Y are independent random variable then $\text{Var}(2X + Y)$ is:
 A) 13 B) 17 C) 25 D) -1
- Q:-17 Paasche's index number is
 A) Simple index number B) Weighted index number.
 C) Un-weighted index number. D) None of these
- Q:-18 The probability of sure event is
 A) 0 B) 0.5 C) 1 D) None of these
- Q:-19 Two books are to be selected at random without replacement out of four books. The number of possible selections are:
 A) 4 B) 2 C) 6 D) 3
- Q:-20 The six faces of the die are called equally likely if the die is:
 A) Small B) fair C) six-faced D) round
- Q:-21 The range of normal distribution is :
 A) 0 to $+\infty$ B) $-\infty$ to 0 C) $-\infty$ to $+\infty$ D) 0 to n
- Q:-22 In hyper geometric distribution, the successive trials are:
 A) Dependent B) Independent
 C) Both (A) and (B) D) Origin and scale
- Q:-23 A probability of _____ event represents is 1.
 A) Impossible B) An improbable event
 C) Null event D) Sure event
- Q:-24 Three coins are tossed. What is probability that there will all be one head?
 A) $1/8$ B) $1/4$ C) $1/3$ D) $3/2$
- Q:-25 The appropriate graph of probability density function is:
 A) curve B) histogram C) polygon D) None of these
- Q:-26 A variable which can assume all values in the range of a random variable, the random variable is called:
 A) finite B) infinite C) continuous D) discrete

- Q:-27 The probability of an event happening is $1/3$. The probability of it not happening is?
A) -12 B) 0 C) $2/3$ D) 3
- Q:-28 Which of the following could never be described by the binomial distribution?
A) The number of defective items produced by an assembly process.
B) The amount of water used daily by a single household.
C) The number of people in a class who can answer a particular question correctly.
D) All of these.
- Q:-29 Standard deviation of the binomial distribution depends upon;
A) Probability of success. B) Number of trials
C) Both (A) and (B) above D) None of these
- Q:-30 $\text{Var}(X)$ is equal to:
A) $E(X^2)$ B) $[E(X)]^2$
C) $E(X^2) - [E(X)]^2$ D) $E(X^2) + [E(X)]^2$
- Q:-31 The expectation of the product of two independent variable is equal to:
A) $E(X) \cdot E(Y)$ B) $E(X) + E(Y)$ C) $E(X \cdot Y)$ D) $E(XY)$
- Q:-32 If X has binomial distribution with parameter p and n then X/n has the variance
A) Npq B) n^2pq C) pq/n D) pq/n^2
- Q:-33 A binomial distribution may be approximated by a Poisson distribution if:
A) n is large and p is large B) n is small and p is large
C) n is small and p is small D) none of these
- Q:-34 The probability that a continuous random variable assumes a single value is:
A) Less than one B) Greater than zero
C) Equal to zero D) Between zero and one
- Q:-35 Which of the following is not a characteristic of normal distribution?
A) The total area under the curve is equal to one.
B) The curve is symmetric about the mean.
C) The value of the mean is always greater than the value of the standard deviation.
D) The two tails of the curve extend indefinitely.
- Q:-37 The mean of the hypergeometric distribution are:
A) nk/N B) Nk/n C) Nn/K D) $(n + k)/N$
- Q:-38 The hypergeometric distribution has:
A) one parameter B) two parameters
C) three parameters D) four parameters
- Q:-38 The standard deviation of a sampling distribution is called_____.
A) Sampling error B) Sample error
C) Standard error D) Simple error

- Q:-39 A good way to get a small standard error is to use a _____.
- A) Repeated sampling B) Small sample
C) Large sample D) Large population
- Q:-40 To test whether or not two population variances are equal, the appropriate distribution is:
- A) Z distribution B) Chi-square distribution
C) F distribution D) t distribution
- Q:-41 The type of sampling in which each member of the population selected for the sample is returned to the population before the next member is selected is called,
- A) Sampling without replacement B) Sampling with replacement
C) Simple random sampling D) Systematic sampling
- Q:-42 A binomial random variable X has $n = 16$ and $p = 0.75$. The standardized value corresponding $X = 8$ is:
- A) 1.33 B) -2.31 C) -1.33 D) -0.33
- Q:-43 A method used to make the decision about population the basis of sample.
- A) Statistical interference B) Statistical inference
C) Statistical impliance D) Descriptive Statistics
- Q:-44 Two types of errors associated with hypothesis testing are Type I and Type II. Type II error is committed when:
- A) We reject the null hypothesis whilst the alternative hypothesis is true.
B) We reject a null hypothesis when it is true.
C) We accept a null hypothesis when it is not true.
D) We accept a null hypothesis when it is true.
- Q:-45 In testing hypothesis, the hypothesis which is be tested is called.
- A) The alternative hypothesis. B) The null hypothesis
C) Composite hypothesis D) None of these
- Q:-46 Confidence coefficient or level of confidence is denoted by:
- A) $1 - \beta$ B) $1 - \alpha$ C) α D) β
- Q:-47 Most of the area under the normal curve with parameters μ and σ lies between:
- A) $-0.5 + 0.5$ B) $-\sigma$ and $+\sigma$ C) -2σ and $+2\sigma$ D) -3σ and $+3\sigma$
- Q:-48 List of all the units of the population is called:
- A) Random sampling B) bias
C) Sampling frame D) probability sampling
- Q:-49 Any calculation on the sample data is called:
- A) Parameter B) Statistics C) Statistic D) Error
- Q:-50 A continuous random variable is a random variable that can:
- A) Assess only countable values.
B) Assess any value in one or more intervals.
C) Have no random sample.
D) Assume no continuous random frequency.

- Q:-51 For a continuous random variable the area under the probability distribution curve between any two points are always:
- A) Greater than one B) Less than zero
C) Equal to one D) In the range zero and one
- Q:-52 If $X \sim N(\mu, \sigma^2)$ and a and b are real numbers, then mean of $(aX + b)$ is
- A) $a + b$ B) $a\mu + b$ C) $a\mu$ D) $a + b\mu$
- Q:-53 If $X \sim N(\mu, \sigma^2)$ and a and b are real numbers, then variance of $(aX + b)$ is
- A) $a + b$ B) $a^2\sigma^2 + b$ C) $a^2\sigma^2$ D) $a + b\sigma^2$
- Q:-54 The area under the normal curve within two standard deviation of the mean is:
- A) 68.26% B) 95.44% C) 99.73% D) 99.99%
- Q:-55 A plan for obtaining a sample from a population is called:
- A) Population design B) sampling design
C) Sampling frame D) sampling distribution
- Q:-56 The standard error increases when sample size is:
- A) Increased B) decreased C) Fixed D) more than 30
- Q:-57 The mean of sampling distribution of means is equal to:
- A) μ B) σ C) p D) none
- Q:-58 The sale of ice-cream in a time series is _____.
- A) Trend B) Seasonal Variation
C) Cyclical variations D) Irregularities
- Q:-59 The expected value of a random variable is the
- A) value that has the highest probability of occurring.
B) mean value over an infinite number of observations of the variable.
C) largest value that will ever occur.
D) most common value over an infinite number of observations of the variable
- Q:-60 Which of the following is not an example of a nonrandom sampling technique?
- A) Purposive B) Quota
C) Convenience D) Cluster
- Q:-61 The correlation between intelligence test scores and grades is:
- A) Positive B) Negative
C) Perfect D) They are not correlated
- Q:-62 In the regression equation $Y = a + bX$, the Y is called:
- A) Independent variable B) dependent variable
C) Continuous variable D) none of the above
- Q:-63 When regression line passes through the origin, then:
- A) Intercept is zero B) regression coefficients is zero
C) Correlation is zero D) association is zero

- Q:-64 What information is given by a value of the coefficient of determination?
 A) Strength of relationship
 B) Both strength and direction of relationship
 C) Neither strength nor direction of relationship
 D) Direction of relationship only
- Q:-65 For the regression equation $\hat{Y} = 10 + 2X$, the Y intercept is:
 A) 10 B) 2 C) 0 D) -2
- Q:-66 If $(AB) < \frac{(A)(B)}{n}$, the association between two attributes A and B is:
 A) negative B) positive C) zero D) symmetrical
- Q:-67 Two attributes A and B are said to be positive, if:
 A) $(AB) = \frac{(A)(B)}{n}$ B) $(AB) \neq \frac{(A)(B)}{n}$
 C) $(AB) > \frac{(A)(B)}{n}$ D) $(AB) < \frac{(A)(B)}{n}$
- Q:-68 The shape of the chi-square distribution depends upon:
 A) Parameters B) degrees of freedom
 C) Number of cells D) standard deviation
- Q:-69 Chi-square curve ranges from:
 A) - to + B) 0 to - C) - to 0 D) 0 to 1
- Q:-70 The value of chi-square statistic is always:
 A) negative B) zero
 C) non-negative D) one

Section II: English

Choose the synonyms of the following words:

- Q:-71 Ability
A) capability B) competence C) plenty D) failure
- Q:-72 Blame
A) pending B) delegation C) reproof D) censure
- Q:-73 Efficiency
A) haggle B) capability C) potency D) departure
- Q:-74 Excess
A) superfluity B) subsequent C) steer D) surplus
- Q:-75 Complex
A) complicated B) intricate C) disaster D) bid

Choose the synonyms of the following words:

- Q:-76 Lack
A) evasion B) deficiency C) scarcity D) silent
- Q:-77 Sin
A) crime B) vice C) wild D) dry
- Q:-78 Silly
A) campaign B) foolish C) peace D) tranquility
- Q:-79 Agreeable
A) conformable B) concur C) accede D) wages
- Q:-80 Decide
A) lobby B) resolve C) lie D) determine

In the following questions, a related pair of words or phrase is followed by 4 lettered pair of words or phrase. Select the best answer.

- Q:-81 Man is to run as bird is to _____.
A) run B) weak C) walk D) fly
- Q:-82 Masor: Wall::
A) Artist: easel B) Sculptor: mallet
C) Author: book D) Fisherman: trout
- Q:-83 Watch is to time as thermometer is to _____.

A) temperature B) heat C) mercury D) cover

Q:-84 Minister: Pulpit::

A) Doctor: patient B) Judge: bench
C) Student: teacher D) Programmer: logic

Q:-85 Auger: Carpenter::

A) Cement: mason B) Apron: chef
C) Awl: cobbler D) Studio: sculptor

Q:-86 Father is to son as mother is to _____.

A) Sister B) Aunt C) Mummy D) Daughter

Q:-87 Ring is to finger as watch is to _____.

A) Arm B) Wrist C) Foot D) Head

Q:-88 Elm: Tree

A) Whale: mammal B) Cart: horse
C) Cloud: rain D) Painting: artist

Q:-89 Gullible: Duped::

A) Myopic: misled B) Careful: cautioned
C) Cloud: rain D) Credible: cheated

Q:-90 Bed is to sleep as chair is to _____.

A) Sit B) Wood C) Seat D) Floor

Choose the word which best completes each sentence.

Q:-91 We lost confidence in Salim because he never _____ the grandiose promises he had made.

A) tired of B) delivered on C) retreated from D) forgot about

Q:-92 The driver suddenly applied the brakes when he saw a _____ truck ahead of him.

A) stationary B) moving C) static D) immobile

Q:-93 Knowledge is like a deep well fed by _____ springs, and your mind in the little bucket that you drop in it.

A) external B) perennial C) immortal D) inehaustible

Q:-94 Salma is much too _____ to have anything to do with that obnoxious affair.

A) noble B) proud C) happy D) difficult

Q:-95 there is no incentive for America to sign the treaty since there is every reason to _____ no other nation intends to honour its provisions.

A) regret B) inform C) believe D) occupy

Q:-96 A legislation was passed to punish brokers who _____ their clients funds.

A) defalcate B) devastate C) devour D) embezzle

Q:-97 Normally an individual thunderstorm _____ about 45 minutes.

A) lasts B) ends C) remains D) continues

Q:-98 The task seemed impossible but somehow Jalil _____ very skillfully in the end.

A) pulled it up B) pulled it off
C) pulled it away D) pulled it out

Q:-99 The unruly behavior of the children _____ their parents.

A) aggrieved B) impeached C) incensed D) tempered

Q:-100 We were amazed that a man who had been heretofore the most _____ of public speakers could, in a single speech, electrify an audience and bring them cheering.

A) Pedestrian B) accomplished C) masterful D) auspicious