

# **MOCK MCQ TEST**

**SUBJECT: BUSINESS STATISTICS**

**PAPER CODE: BCOM 209**

DELHI INSTITUTE OF ADVANCED STUDIES

## **FOR PRIVATE CIRCULATION**

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**Q1.** The average salary of a group of unskilled workers is 10,000 and for a group of skilled workers is 15,000. Combines salary is 12,000. What is the percent of skilled workers?

- A) 40%
- B) 50%
- C) 60%
- D) None of these

**Q2** The averages are affected by change of:

- A) Origin
- B) Scale
- C) Origin and Scale
- D) None of Above

**Q3** When the values in a series are not of equal importance, we calculate the:

- A) Arithmetic mean
- B) Geometric mean
- C) Weighted mean
- D) Mode

**Q4** A data set may have no mode, one mode, or multiple modes.

- A) True
- B) False

**Q5** Which partition value divides the series into two equal parts.

- A) P10
- B) P5
- C) P50
- D) P90

**Q6** A furniture retail chain operates several stores across the country. A table is to be constructed to showing the number of employees in each region, organized into groups. Which of the following sets of categories would NOT be suitable for use in such a table?

- A) 0 - 10, 11-20
- B) 0 to less than 10, 10 to less than 20

- C) 0-10, 10-20
- D) 0 up to 10, 10 up to 20

Q7 The cumulative frequency for a particular class is equal to 35. The cumulative frequency for the next class will be .

- A) equal to 65.
- B) 35 minus the next class frequency.
- C) less than 35.
- D) 35 plus the next class frequency.

Q8 What is the modal value for the numbers 4, 3, 8, 15, 4, 3, 6, 3, 15, 3, 4.

- A) 3
- B) 4
- C) 6
- D) 15

Q9 If in a discrete series 75% values are less than 30, then:

- A)  $Q_3 < 75$
- B)  $Q_3 < 30$
- C)  $Q_3 = 30$
- D)  $Q_3 > 30$

Q10 One of the following methods of calculating mode is:

- A)  $\text{Mode} = 3 \text{ Median} - 2 \text{ Mean}$
- B)  $\text{Mode} = 2 \text{ Median} - 3 \text{ Mean}$
- C)  $\text{Mode} = 3 \text{ Median} + 2 \text{ Mean}$
- D)  $\text{Mode} = 2 \text{ Median} - 2 \text{ Mean}$

Q11 According to percentiles, the median to be measured must lie in

- A) 80th
- B) 50th
- C) 100th
- D) 30th

Q12 The sum of the squares of the deviations of the variable is when taken about arithmetic mean

- A) Maximum
- B) Zero
- C) Minimum
- D) None

Q13 The mean of 10 observations is 10. All the observations are increased by 10%. The mean of increased observations will be:

- A) 10
- B) 1.1
- C) 11
- D) 10.1

Q14 The suitable average for averaging the shoe sizes for children is:

- A) Mean
- B) Median
- C) Mode
- D) Geometric mean

Q15 What is the value of the first quartile for observations 15, 18, 10, 20, 23, 28, 12, 16?

- A) 17
- B) 16
- C) 12.75
- D) 12

Q16 The measurements of spread or scatter of the individual values around the central point is called:

- A) Measures of dispersion
- B) Measures of skewness
- C) Measures of central tendency
- D) Measures of kurtosis

Q17 The smaller the variance the less spread of the data around the mean

- A) True
- B) False

Q18 The measures of dispersion can never be:

- A) Positive
- B) Negative
- C) Zero
- D) equal to 2

Q19 The mean deviation is minimum when deviations are taken from:

- A) Mean
- B) Median
- C) Mode
- D) None of these

Q20 Which of the following is a unit free measure of dispersion:

- A) Range
- B) Standard deviation
- C) Interquartile range
- D) Coefficient of range

Q21 The standard deviation is independent of:

- A) Change of scale
- B) Change of origin
- C) Change of origin and scale
- D) None of these

Q22 In order to compare two series we can use

- A) Coefficient of Variation
- B) Standard deviation
- C) Coefficient of Skewness
- D) Coefficient of kurtosis

Q23 If the values of mean, median and mode coincide in a unimodal distribution, then the distribution will be:

- A) Positively Skewed
- B) Symmetrical
- C) Negatively Skewed
- D) None of these

Q24 The degree of peaked ness or flatness of a unimodal distribution is called:

- A) Skewness
- B) Kurtosis
- C) Dispersion
- D) Normal distribution

Q25 Following are the Relative measures of dispersion except

- A) Co-efficient of Mean deviation
- B) Standard deviation
- C) Co-efficient of Range
- D) Co-efficient of Quartile deviation

Q26 For a symmetrical distribution  $Q_1=25$ ,  $Q_3=45$ , the median is

- A) 20
- B) 25
- C) 35
- D) None of these

Q27 The coefficient of variation cannot be meaningfully used to compare the variability of two or more sets of data, when

- A) The standard deviation is zero for one or more sets of data

- B) The standard deviation is 1 for one or more sets of data
- C) The mean is zero for one or more sets of data
- D) The mean is 1 for one or more sets of data

Q28 Standard deviation is always computed from

- A) Mean
- B) Median
- C) Mode
- D) geometric mean

Q29 Which of the following is true, if there is no dispersion in a data set:

- A) All the mathematical and positional averages are equal.
- B) All the mathematical averages are equal but the positional averages are not equal
- C) All the mathematical averages are equal to zero
- D) None of these

Q30 For a distribution of data, if the arithmetic mean > median > mode, then which of the following is true?

- A) The distribution is symmetrical
- B) The distribution is positively skewed
- C) The distribution is negatively skewed
- D) None of these

Q31 Correlation analysis is a .....

- A) Univariate analysis
- B) Bivariate analysis
- C) Multivariate analysis
- D) Both Bivariate and Multivariate analysis

Q32 If one of the regression coefficients is greater than unity, the other must be:

- A) More than Unity
- B) Less than Unity
- C) Unity

Q33 If all the points of a scatter diagram lie on a straight line falling from left upper corner to the right bottom corner, the correlation is called.....

- A) Zero correlation
- B) High degree of positive correlation
- C) Perfect negative correlation
- D) Perfect positive correlation

Q34 The rank correlation coefficient was discovered by.....

- A) Fisher
- B) Spearman
- C) Karl Pearson

D) Bowley

Q35 If the regression line is Y on X, then the variable X is known as.....

- A) Independent variable
- B) Explanatory variable
- C) Regressor
- D) All the above

Q36 The point of intersection of two regression lines is.....

- A) (0,0)
- B) (1,1)
- C) (x,y)
- D) ( $\bar{x}$ ,  $\bar{y}$ )

Q37 If  $r = \pm 1$ , the two regression lines are.....

- A) Coincident
- B) Parallel
- C) Perpendicular to each other
- D) None of these

Q38 If  $b_{yx}$  and  $b_{xy}$  are two regression coefficients, they have:

- A) Same signs
- B) Opposite signs
- C) Either a or b
- D) None of the above.

Q39 The Correlation coefficient between two variables is the.....of their regression coefficients.

- A) Arithmetic mean
- B) Geometric mean
- C) Harmonic mean
- D) None of these

Q40 The percent of the total variation of the dependent variable Y explained by the set of independent variables X is measured by:

- A) Coefficient of Correlation
- B) Coefficient of Skewness
- C) Coefficient of Determination
- D) Standard error

Q41 The value of the correlation coefficient lies between

- A) -1 and +1
- B) -1 and 0



- C) 0 and 1
- D) None

Q42 A Scatter diagram is considered for measuring

- A) Linear relationship between two variables
- B) Curvilinear relationship between two variables
- C) Neither a or b
- D) Both a and b

Q43 The maximum value of the Rank Correlation coefficient is

- A) +1
- B) -1
- C) 0
- D) None of these

Q44 What is the purpose of a simple linear regression?

- A) To predict scores on a dependent variable from scores on a single independent variable
- B) To predict scores on an independent variable from scores on multiple dependent variables
- C) To predict scores on a dependent variable from scores on multiple independent variables
- D) None of Above

Q45 If  $r$  is the simple correlation coefficient, the quantity  $r^2$  is known as .....

- A) Coefficient of determination
- B) Coefficient of non-determination
- C) Coefficient of alienation
- D) None of these

Q46 A simple index number is a number that measures a relative change in \_\_\_?

- A) group of variable with respect to a base
- B) single variable with respect to a base
- C) Both A & B
- D) None of the above

Q47 Which index number is called as ideal index number.

- A) Lasperys
- B) Paasches
- C) Fisher
- D) None of Above

Q48 Secular trend can be measured by:

- A) Two methods
- B) Three methods

- C) Four methods
- D) Five methods

Q49 Fishers price index number is the -----

- A) A.M. of Lasperys and Paasches.
- B) G.M. of Lasperys and Paasches.
- C) Difference between Lasperys and Paasches
- D) None of the above.

Q50 Relative Method is further divided into how many types?

- A) One
- B) two
- C) None of the above
- D) All of the Above.

Q51 In Price Index Numbers prices can either be ?

- A) Retail
- B) wholesale
- C) Both I and II
- D) None of the above.

Q52 While computing a weighted index, the current period quantities are used in the:

- A) Laspeyre's method
- B) Paasche's method
- C) Marshall Edgeworth method
- D) Fisher's ideal method

Q53 .....is a point of reference in comparing various data describing individual behaviour.

- A) Sample
- B) Base period
- C) Estimation
- D) None

Q54 Wheat crops badly damaged on account of rains is:

- A) Cyclical movement
- B) Random movement
- C) Secular trend
- D) Seasonal movement

Q55 A complete business cycle consists of a period of:

- A) Prosperity
- B) Recession
- C) Both prosperity and recession
- D) none of the above

Q56 Which of the following can't be a component for a time series plot?

- A) Seasonality
- B) Trend
- C) Cyclical
- D) Noise
- E) None of the above

Q57 The additive and multiplicative time series models are:

- A)  $Y = T + S + C + I$  and  $Y = TSCI$  respectively
- B)  $Y = TSCI$  and  $Y = T + S + C + I$
- C) none of these

Q58 Value of  $b$  in the trend line  $Y = a + bX$  is:

- A) Always positive
- B) Always negative
- C) Both positive or negative
- D) None of these

Q59 In a straight line equation  $Y = a + bX$ ;  $a$  and  $b$  are respectively:

- A) X-intercept and slope
- B) Y intercept and slope
- C) can't determined

Q60 A time series consists of:

- A) Short-term variations
- B) Irregular variations
- C) Long-term variations
- D) All of the above

### Answer Key of QUESTIONS

1	A	11	B	21	B	31	D	41	A	51	C
2	C	12	B	22	A	32	B	42	D	52	B
3	C	13	C	23	B	33	C	43	A	53	B
4	A	14	C	24	B	34	B	44	A	54	B
5	C	15	B	25	B	35	D	45	A	55	C
6	C	16	A	26	C	36	D	46	B	56	E
7	B	17	A	27	C	37	A	47	C	57	A
8	A	18	B	28	A	38	A	48	C	58	C
9	C	19	B	29	A	39	B	49	B	59	B
10	A	20	D	30	B	40	C	50	B	60	D

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