BRAINWARE UNIVERSITY

Term End Examination 2021 - 22
Programme – Bachelor of Business Administration
Course Name – Statistics for Business Decisions
Course Code - BBAC102
(Semester I)

Time : 1 Hr.15 Min.   **Full Marks : 60**

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)   1 x 60=60

Choose the correct alternative from the following :

(1) Which one of these statistics is unaffected by outliers?

a) Mean   b) Interquartile range

c) Standard deviation   d) Range

(2) Find the median of the following data: 160, 180, 200, 280, 300, 320, 400

a) 140   b) 180

c) 280   d) 300

(3) Census reports used as a source of data is

a) Primary Source   b) Secondary Source

c) Organized data   d) none of the above

(4) The weights of students in a college/ school is a

a) Discrete variable   b) Continuous Variable

c) Qualitative Variable   d) None of these

(5) The first hand and unorganized form of data is called

a) Secondary Data   b) Organized Data

c) Primary Data   d) None of these

(6) Type of central tendency measures which divides data set into four equal parts is

a) deciles   b) quartiles

c) multiple pile of data   d) percentiles

(7) In measure of central tendency, mean is denoted by

a) x^- b) ϵ

c) μ d) Ω

(8) Per day wage of 15 employees of different departments is as 620, 640, 750, 850, 650, 7
20, 730, 785, 630, 740, 900, 880, 780, 690, 850 then value of x^- is

a) 647.67

b) 947.67

c) 847.67

d) 747.67

(9) When data is arranged, middle value in set of observations is classified as

a) median

b) mean

c) variance

d) standard deviation

(10) Around central value of observations, extent to which values depart from normal distribution is classified as

a) negative variation

b) positive variation

c) skewness

d) positive trailing

(11) Arithmetic mean is 12 and number of observations are 20 then sum of all values is

a) 8

b) 32

c) 240

d) 1.667

(12) Mean or average used to measure central tendency is called

a) sample mean

b) arithmetic mean

c) negative mean

d) population mean

(13) In arithmetic mean, sum of deviations of all recorded observations must always be

a) two

b) minus one

c) one

d) zero

(14) In two units of company, employees in unit one are 650 and monthly salary is $2750, employees in unit two are 700 and monthly salary is $2500 then combined arithmetic mean is

a) 2620

b) 2520

c) 2420

d) 2320

(15) Which one is the not measure of dispersion?

a) Range

b) Variance

c) Mean

d) Inter-quartile Range

(16) Which of the following is not a measure of dispersion

a) Skewness

b) Mean Deviation

c) Standard Deviation

d) Quartile Deviation

(17) Considering sales, coefficient of variation for product X is 9.3% and coefficient of variation for product Y is 8.9% then sales fluctuation of

a) product X is higher

b) product Y is higher

c) product X is lower

d) product X and Y is lower

(18) Number of patients who visited cardiologists are as 63, 57, 51, 65 in four days then absolute mean deviation (approximately) is

a) 8 patients

b) 4 patients

c) 10 patients

d) 15 patients

(19) Mean absolute deviation is divided by coefficient of mean absolute deviation to calculate

a) variance

b) median

c) arithmetic mean

d) coefficient of variation

(20) For set of values, percentage of values that lies within population mean plus four standard deviations of population is

a) 0.8375

b) 0.9375

c) 0.95

d) 0.9875

(21) If positive square root is taken of population variance then calculated measure is transf ormed into

a) standard root

b) standard deviation

c) standard variance

d) sample variance

(22) If quartile range is 24 then quartile deviation is

a) 12

b) 48

c) 72

d) 50

(23) Mean absolute deviation is 5 and arithmetic mean is 110 then coefficient of mean absol ute deviation is

a) 1.054

b) 0.045

c) 0.054

d) 0.064

(24) In a set of observations, amount of variation can be shown in form of figures with help of

a) absolute measures

b) uniform measures

c) non-uniform measures

d) exploratory measures

(25) Mean Deviation, Variance and Standard Deviation of the values 4, 4, 4, 4, 4, 4 is

a) 2

b) 4

c) 0

d) 8

(26) Given below the four sets of observations. Which set has the minimum variation?

a) 46, 48, 50, 52, 54

b) 30, 40, 50, 60, 70

c) 40, 50, 60, 70, 80

d) 48, 49, 50, 51, 52

(27) Variables whose measurement is done in terms such as weight, height and length are cl assified as

a) continuous variables

b) measuring variables

c) flowchart variables

d) discrete variables

(28) At a manufacturing plant, unit of quantity manufactured in 8 days are 250, 320, 240, 2 10, 260, 330, 310, 260 Find the Range

a) 120

b) 160

c) 140

d) 150

(29) The correlation coefficient is used to determine

a) A specific value of the y-variable given a spe cific value of the x-variable

b) A specific value of the x-variable given a sp ecific value of the y-variable

c) The strength of the relationship between the x and y variables

d) None of these

(30) Range of the coefficient of correlation is

a) 2

b) ± 1

c) ± 0.5

d) ± 0.25

(31) If bxy = 0.25 and byx = 0.64, correlation coefficient is

a) 0.16

b) 0.4

c) 0.89

d) 0.3

(32) In case there is no relation between two variables, value of coefficient of correlation w ill be

a) -2

b) 1

c) 0

d) 2

(33) Correlation refers to

a) the causal relationship between two variables

b) the association between two variables

c) the proportion of variance that two variables share

d) a statistical method that can only be used with a correlation research design.

(34) If two variables, x and y, have a very strong linear relationship, then

a) there is evidence that x causes a change in y

b) there is evidence that y causes a change in x

c) there might not be any causal relationship between x and y

d) None of these alternatives is correct.

(35) If the scatter diagram is drawn the scatter points lie on a straight line then it indicates

a) Skewness

b) Perfect correlation

c) No correlation

d) None of these

(36) 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':

a) $0 \leq r \leq 1$

b) $r \geq 0$

c) $r = +1$

d) $r = -1$

(37) The method of least squares dictates that we choose a regression line where the sum of the square of deviations of the points from the lie is:

a) Maximum

b) Minimum

c) Zero

d) Positive

(38) All data points falling along a straight line is called:

a) Linear relationship

b) Non linear relationship

c) Residual

d) Scatter diagram

(39) The predicted rate of response of the dependent variable to changes in the independent variable is called:

a) Slope

b) Intercept

c) Error

d) Regression equation

(40) Which of the following can't be a component for a time series plot?

a) Seasonality

b) Trend

c) Cyclical

d) Regression

(41) Gradual shifting of a time series over a long period of time is called

a) Periodicity.

b) Cycle.

c) Regression.

d) Trend.

(42) Short-term, unanticipated, and nonrecurring factors in a time series provide the random variability known as

a) uncertainty.

b) The forecast error.

c) The residuals.

d) The irregular component.

(43) If a value is missing in a time series we can do one of the following

a) Just copy the previous value

b) Estimate it as an average between two neighboring values

c) take the overall mean as the best estimate of it

d) Ignore it

(44) A fire in a factory delaying production for some weeks is

a) Secular Trend

b) Irregular Trend

c) Seasonal Trend

d) Cyclical Trend

(45) Prosperity, Recession and depression in a business is an example of

a) Secular Trend

b) Irregular Trend

c) Cyclical Trend

d) Seasonal Trend

(46) A restaurant has been experiencing higher sales during the weekends of compared to the weekdays. Daily restaurant sales patterns for this restaurant over a week are an example of _____ component of time

a) Trend

b) Seasonal

c) Cyclical

d) Irregular

(47) An overall upward or downward pattern in an annual time series would be contained in which component of the times series

a) trend

b) cyclical

c) irregular

d) seasonal

(48) When the prices of rice are to be compared, we compute

a) Volume Index

b) Value Index

c) Price Index

d) Aggregative Index

(49) Uses of index numbers includes

a) cost of living

b) forecasting

c) all of these

d) None

(50) An index number is used:

a) To measure changes in demand

b) To measure changes in quantity

c) To measure changes in price

d) To measure changes in a variable over time

(51) The Laspeyres and Paasche index are examples of

a) Weighted price index only

b) Weighted quantity index only

c) Weighted index numbers

d) Aggregate index numbers

(52) What is the probability of getting exactly two "tails" in four tosses of a fair coin?

a) . 3/8

b) 5/8

c) . 1/2

d) . 1/8

(53) Probability of second event in situation if first event has been occurred is classified as

a) series probability

b) conditional probability

c) joint probability

d) dependent probability

(54) If you rolled a 6-sided dice, what is the probability of rolling a 3?

a) 1/6

b) 2/3

c) 3/6

d) 3/3/

(55) In a Venn diagram used to represent probabilities, sample space of events is represented by

a) square

b) triangle

c) circle

d) rectangle

(56) For two events, probability of occurrence of both events at same time or occurrence in series is classified as

a) joint probability

b) dependent probability

c) series probability

d) conditional probability

(57) In probability theories, events which can never occur together are classified as

a) collectively exclusive events

b) mutually exhaustive events

c) mutually exclusive events

d) collectively exhaustive events

(58) In measuring probability of any certain event, zero represents

a) impossible events

b) possible events

c) certain event

d) sample event

(59) For a random experiment, all possible outcomes are called

a) numerical space

b) event space

c) sample space

d) both b and c

(60) A bag contains 3 red and 2 blue marbles. A marble is drawn at random. The probability of drawing a black ball is :

a) . 3/5

b) 2/5

c) 0

d) 1/5/