



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Business Administration & Bachelor of Law

Course Name – Business Statistics

Course Code - BBALLB201

(Semester II)

Time allotted : 1 Hrs.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) The following data show the number of hours worked by 200 statistics students.

Number of	
<u>Hours</u>	<u>Students</u>
0 - 9	40
10 - 19	50
20 - 29	70
30 - 39	40

The class width for this distribution is

a) 9

b) 10

c) 11

d) Varies from class to class

(2) The following data show the number of hours worked by 200 statistics students.

Number of	
<u>Hours</u>	<u>Students</u>
0 - 9	40

- c) Sector Graph
 (15) A frequency polygon is a close figure of
 a) Two sided
 c) Many sided
- d) Conversion graph
 b) Three Sided
 d) None of these
- (16) Component bar charts are used when data is divided into
 a) Circles
 c) Parts
- b) Groups
 d) None of these
- (17) Which of the following is not based on all the observations?
 a) Mean
 c) Mode
- b) Median
 d) None of these
- (18) The mean of 7, $x-2$, 10, $x+3$ is 9. The value of x
 a) 0
 c) 18
- b) 9
 d) $2x+18$
- (19) Find the median of the following data: 160, 180, 200, 280, 300, 320, 400
 a) 140
 c) 180
- b) 300
 d) 280
- (20) Which of the following Measure of Averages is not based on all the values given in the data set?
 a) Arithmetic Mean
 c) Median
- b) Geometric Mean
 d) Mode
- (21) Relation between A.M, G.M and H.M
 a) $A.M > G.M > H.M$
 c) A.M
- b) $A.M = G.M = H.M$
 d) None of these
- (22) Which of the following is not a measure of central tendency?
 a) Percentile
 c) Standard deviation
- b) Quartile
 d) Mode
- (23) The mean deviation of each samples about mean is:
 a) Maximum
 c) Minimum
- b) Zero
 d) Undefined
- (24) The second moment about mean is:
 a) Standard Deviation
 c) Coefficient of Variation
- b) Variance
 d) None of these
- (25) The degree of peakedness is called
 a) Dispersion
 c) Symmetry
- b) Skewness
 d) Kurtosis
- (26) $\text{Var}(2X+3)=?$
 a) $2\text{Var}(X)$
 c) $2\text{Var}(X)+3$
- b) $4\text{Var}(X)$
 d) None of these
- (27) The variance of 5 numbers is 10. If each number is divided by 2, then the variance of new numbers is
 a) 0
 c) 5
- b) 20
 d) 2.5
- (28) The first order raw moment is equal to
 a) 0
 c) 2
- b) 1
 d) None of these

- (29) Variance is always calculated from
- a) Mean
b) Mode
c) Median
d) 0
- (30) Variance remains unchanged by the change of
- a) Origin
b) Scale
c) both origin and scale
d) none of these
- (31) Which one is true for Standard Deviation(S.D) and Mean Deviation (M.D.)
- a) S.D>M.D.
b) S.D=M.D
c) Both S.D>M.D. and S.D=M.D
d) None of these
- (32) In Correlation both variables are always
- a) Random
b) Non-Random
c) Same
d) None of these
- (33) The Coefficient of Correlation between X and X is
- a) -1 to +1
b) +1
c) -1
d) none of these
- (34) If $b_{xy}<0$ and $b_{yx}<0$, then r is
- a) >0
b) $=0$
c) <0
d) none of these
- (35) When regression line passes through the origin then
- a) Regression coefficient is zero
b) Correlation is zero
c) Intercept is zero
d) Association is zero
- (36) Two regression lines are parallel to each other if their slope is
- a) Different
b) Same
c) Negative
d) None of these
- (37) The correlation coefficient between $U=X$ and $V=-X$ is
- a) +1
b) -1
c) 0
d) None of these
- (38) 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
- (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) The slope of the regression line of Y on X is also called the
- a) Correlation coefficient of X on Y
b) Correlation coefficient of Y on X
c) Regression coefficient of X on Y
d) Regression coefficient of Y on X
- (41) The graph of time series is called
- a) Histogram
b) Straight line
c) Historigram
d) Ogive
- (42) The secular trend is measured by the method of semi-averages when
- a) Time series based on yearly values
b) Trend is linear
c) Time series consists of even number of values
d) None of these
- (43) The systematic components of time series which follow regular pattern of variations are

called

- a) Signal
- b) Noise
- c) Additive model
- d) Multiplicative model

(44) Wheat crops badly damaged on account of rains is

- a) Cyclical movement
- b) Random movement
- c) Secular trend
- d) Seasonal movement

(45) A complete cycle passes through:

- a) Two stages
- b) Three stages
- c) Four stages
- d) Difficult to tell

(46) The most commonly used mathematical method for measuring the trend is

- a) Moving average method
- b) Semi average method
- c) Method of least squares
- d) None of these

(47) The index number that can be used for multi-purpose is:

- a) General Index Number
- b) None of these
- c) Cost of Living Index Number
- d) Special Index Number

(48) The index for the base period is always taken as

- a) 200
- b) 100
- c) zero
- d) One

(49) The commodities subject to considerable prices variations can be best measured by

- a) Average Index
- b) Quantity Index
- c) Price Index
- d) Value Index

(50) Chaining process used to make a comparison of the index number is

- a) Link Relative Method
- b) Fisher Ideal Index
- c) None of these
- d) Fixed Base Method

(51) Index numbers are free from a unit of measurement because the index number shows

- a) Average Changes
- b) Relative Changes
- c) Variations
- d) None of these

(52) In chain base method, the base period is

- a) Fixed
- b) Not fixed
- c) Constant
- d) Zero

(53) Consumer price index indicates

- a) Rise
- b) Fall
- c) Both Rise and Fall
- d) Neither Rise and Fall

(54) When two coins are tossed simultaneously, what are the chances of getting at least one tail?

- a) $\frac{3}{4}$
- b) $\frac{1}{4}$
- c) $\frac{1}{2}$
- d) 1

(55) A speaks truth in 75% of cases and B in 80% of cases. In what percentage of cases are they likely to contradict each other, narrating the same incident

- a) 0.25
- b) 0.35
- c) 0.45
- d) 0.5

(56) In a throw of coin what is the probability of getting head.

- a) 1
- b) $\frac{1}{2}$
- c) 0
- d) $\frac{1}{4}$

(57) What is the probability of getting a sum 9 from two throws of dice.

a) $1/3$

c) $1/12$

b) $1/9$

d) $2/9$

(58) A random experiment contains

a) At least one outcome

c) At most one outcome

b) At least two outcomes

d) At most two outcomes

(59) A set of all possible outcomes of an experiment is called

a) Combination

c) Sample space

b) Sample point

d) Compound event

(60) For Mesokurtic curve of the distribution, β_2 is

a) 0

c) >3

b) <3

d) $=3$