TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
III SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS
BUSINESS STATISTICS QUESTION BANK

I. Multiple choice questions.

1. Which of the following statements is true? [d]
a. Statistics are aggregates of acts b. Statistics are numerically expressed
c. Statistics are collected in a systematic manner d. All of the above

2. Statistics can best be considered as _____ [c]
a. An art b. Science c. Both art as well as science d. Neither art not science

3. The scope of survey depends on _____ [a]
a. The objectives b. Availability of time c. Resources d. A and B only

4. Data is generally obtained from _____ [c]
a. Primary sources b. Secondary sources c. Both a & b d. None of these

5. Secondary data _____ [b]
a. Should never be used b. Should be used after careful scrutiny
c. While scrutinizing the only thing to see is who collected it d. None of the above

6. The number of questions in a questionnaire should be _____ [d]
a. 3 b. 15 c. 40
d. As small as possible keeping in view the purpose of the survey

7. While handling/editing primary data, we have to see that the information contained in the questionnaire is _____ [d]
a. Complete b. Consistent c. Accurate d. All of the above

8. Primary data is _____ [c]
a. Always more reliable compared to secondary data
b. Less reliable compared to secondary data
c. Depends on the care with which data has been collected
d. Depends on the agency collecting the data

9. Which of the following statements is true about diagrams? [d]
a. Diagrams reduce huge amount of data into simple figure
b. Diagrams bring out the essence of the underlying data with great clarity
c. Diagrams help in highlighting the trends in underlying data
d. All of the above

10. Which of the following statements is Not True about diagrams? [c]
a. Diagrams have limited ability to highlight small differences in large measurements
b. Diagrams cannot be analyzed further through statistics
c. Diagrams are a superior substitute to tabular presentations
d. All of the above statements are true

11. Which of the following is not a one dimensional diagram? [c]
a. Line Diagram b. Bar Diagram
c. Rectangular Diagram d. All of the above are one dimensional diagrams

12. Which of the following statements is True about Bar diagrams? [b]
a. They are two dimensional diagrams
b. They consist of a group of equidistant
c. The width of the rectangle is very important
d. To analyze the diagram, width of the rectangle is measured

13. A manager wants to know the breakup of his sales into fixed costs, variable costs and profit. This data can be presented I the form of [c]
a. Line diagram b. Simple bar diagram c. Sub divided bar diagram d. Deviation bar diagram

14. _____ is used is presentation of net quantities, which can be positive or negative [a]
a. Deviation bar diagram b. Broken bar diagram
c. Multiple Bar Diagram d. Duo directional bar diagram
15. The breakup of a given whole, into its various components, is best presented as [d]
a. Broken bar diagram b. Deviation bar diagram c. Multiple bar diagram d. Pie diagram
16. Which of the following is not a two dimensional diagram? [a]
a. Bar diagram b. Rectangular diagram
c. Square diagram d. All of the above are two dimensional diagrams
17. Which of the following is not an objective of an average? [c]
a. Represent the characteristics of the entire mass of data
b. To facilitate comparison
c. To provide clear, complete and meaningful conclusions
d. To facilitate further analysis
18. Which of the following is an average of position? [d]
a. Arithmetic b. Geometric Mean c. Harmonic Mean d. Median
19. Which of the following is not true about arithmetic mean? [c]
a. It is rigidly defined b. It provides a good basis for comparison
c. It is not impacted by extreme values d. All of the above statements are true about arithmetic mean
20. Weighted arithmetic mean is used when [d]
a. Importance of all items in a series is not equal
b. Classes of the same group contain widely varying frequencies
c. Ratios, percentages or rates are being averaged
d. All of the above
21. The weighted arithmetic mean is always _____ than the simple arithmetic mean [d]
a. Greater b. Lower c. Equal to d. cannot be said with certainty
22. For the purpose of selecting a candidate for a job, candidates are evaluated on various parameters. Which average should be chosen to decide on the right candidate? [c]
a. Simple arithmetic mean b. weighted arithmetic mean
c. Combined mean d. Geometric mean
23. Which of the following statements is not true about the median? [b]
a. It is a positional average b. It is affected by extreme values
c. All observations need to be arranged in ascending or descending order before calculating the median
d. All of the above statements are true
24. The positional measure that divides the entire series into 10 equal parts is called [c]
a. Median b. Quartile c. Decile d. Percentile
25. Dispersion measures [a]
a. The scattering of a given set of observations
b. The concentration of a given set of observations
c. Both a and b
d. Neither a nor b
26. When 2 or more distributions are to be compared, then we must consider [b]
a. Absolute measures of dispersion b. Relative measures of dispersion
c. Both a and b d. None of the above
27. Which of the following measure is expressed as a pure number (without any units) which enables comparison of the levels of dispersion from a central tendency across different series? [c]
a. Inter quartile range b. Standard deviation
c. Coefficient of variance d. All of the above
28. The following are the wages of 10 workers of a factory. Find the range of variation:120, 170, 240, 100, 105, 205, 300, 160, 150, 180 [b]
a. 100 b. 200 c. 300 d. 0.5

29. Calculate co-efficient of range [c]

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of students	5	8	12	20	15	7	3

a. 0 b. 70 c. 1 d.2

30. Mean deviation of a series is the arithmetic average of the deviations of various items from [c]
a. Mean b. Median c. either Mean or Median d. None of the above

31. Given Q = 24, Q = 36, Co-efficient of Quartilie deviation = [b]
a. 18 b. 0.429 c. 30 d. 60

32. In a normal distribution [a]
a. Mean = median = Mode b. Mean < median > mode
c. Mean > median > mode d. Any of the above relations is possible

33. High correlation between rainfall and stock prices means [c]
a. If rainfall increases, stock prices will definitely increase
b. If rainfall increases, stock prices will definitely decrease
c. If rainfall increases, stock prices may or may not increase
d. There is no relation between rainfall and stock prices

34. Which of the following statements is true? [c]
a. Causation and correlation are two words meaning the same thing
b. Correlation implies that the change in a variable is because of the change in another variable
c. Causation is the relationship between an event and a second event, where the second event is understood as a consequence of the first
d. None of the above

35. Which of the following can be a reason for high correlation between 2 variables, without having a cause and effect relationship? [d]
a. Common factor influencing both variables b. Mutual dependence
c. Pure chance d. All of the above

36. Which of the following statements is true? [a]
a. Two variables having causation will have a high correlation
b. Two variables having causation will not have a high correlation
c. Two factors having a high correlation will have causation
d. There is no difference between causation and correlation

37. When price increases, demand decreases. This is an example of [b]
a. Positive correlation b. Negative correlation c. No correlation d. linear correlation

38. Which of the following is not an example of Logical correlation? [c]
a. Correlation between price of oil and price of gold
b. Correlation between agricultural output and price of gold
c. Correlation between gold medals won by India at the Olympics and price of gold
d. All of the above are examples of logical correlation

39. Which of the following statements is rue in respect of a scatter diagram? [d]
a. If the points plotted on the diagram are closer to each other, there is a correlation
b. If points are scattered there is no correlation or lesser correlation
c. Shape of the scatter diagram reveals whether correlation is positive or negative, linear or non-linear
d. All of the above

40. Which of the following methods of measuring correlation is impacted by extreme values? [b]
a. Scatter diagram method b. Karl Pearson's method
c. Spearman's Rank correlation method d. Concurrent deviation method

II. Fill in the blanks

1. Presentation of data should ensure that data collected is not cluttered and that data required for specific analysis is readily available
2. Interpretation refers to drawing conclusions from data analysis
3. Statistical methods are the tools that are in the hands of the statistician
4. Applied statistics deals with application of statistical methods to specific problems

5. According to the Law of Statistical Regularity, if a large 'population' has to be studied, a statistician will be able to get the same results by studying a moderately large sample chosen at random
6. Statistical investigation or statistical enquiry is a process where relevant quantitative data is collected for the purpose of analysis to arrive at a conclusion
7. Hypothesis is the conclusion that is arrived at on the basis of observation, using deductive logic and needs to be tested
8. Data constitute the foundation of statistical analysis and interpretation
9. Diagrams are an effective Supplement to tabular presentation
10. While constructing a diagram, Scale should be selected consistent with the size of observations to be displayed
11. A diagram should ideally maintain a proportion of 1:1.4142 between the smaller side and the larger side respectively
12. A Line line diagram involves drawing multiple vertical lines; wherein different values of a variable x are presented on X axis and the corresponding frequencies for each value of x are presented on Y axis
13. The bar diagram to be used when only one variable is to be studied is simple bar diagram
14. If subdivided bar diagrams are presented on percentage basis i.e., each component as a percentage of the whole, it is said to be a percentage bar diagram
15. If two or more sets of data are to be presented simultaneously, multiple bar diagrams are used
16. Net profit/loss over the years is best presented in the form of deviation bar diagram
17. An Average (measure of central tendency) is a representative figure, a single value around which other items of the distribution congregate
18. Arithmetic mean of a series is the figure obtained by dividing the total values of the various items by their number
19. Arithmetic mean has an Upward4 bias
20. The simple formula to calculate arithmetic mean for individual observations is $\overline{X} = \frac{\sum X}{N}$
21. The weighted arithmetic mean clearly brings out the relative importance of the various components of a series
22. Weighted mean should be calculated when the importance of the items in a series is not equal
23. The sum of squares of deviations of a set of observations is the minimum when deviations are taken from the arithmetic average. This is known as the property of 'least squares' in arithmetic mean.
24. If each of the values of a variate X is increased by a constant k, the impact on arithmetic mean is that it increased by the same amount
25. Dispersion measures the extent to which the items vary from some central value
26. It can be inferred that an average is truly representative of the series if the measure of dispersion is small or low
27. Absolute measure of dispersion is one that is expressed in terms of the same unit in which the variable (or given data) is measured
28. Range is the difference between the values of the largest item and the value of the smallest items of a series
29. The formula for calculating coefficient of Range is $\frac{L-S}{L+S}$
30. Quartile Deviation shows the average amount by which the two quartiles differ from median
31. The formula for calculating coefficient of quartile deviation is $\frac{Q_3 - Q_1}{Q_3 + Q_1}$
32. Standard is the square root of the arithmetic average of the squares of the deviations measured from mean
33. Correlation is a quantitative measure of the degree or strength of relationship that may exist between two variables
34. There is a high, positive correlation between rainfall and stock prices
35. Positive correlation means that the direction of change is likely to be same
36. Causation implies that the change in a variable is because of the change in another variable

37. Correlation between two variables is Linear if the change in one variable in response to change in another variable is proportionate
38. Correlation between variables in social sciences is always Non-linear
39. When the correlation between two variables is not just a calculation but has a logical base or reasoning, such correlation is called logical correlation
40. The shape of the scatter diagram reveals whether correlation is positive or negative, linear or non-linears