Statistics and Analysis – Unit1:

1. What is the purpose of creating a frequency table?

- a) To summarize categorical data
- b) To summarize continuous data
- c) To calculate statistical measures
- d) All of the above

2. In a frequency table, the frequency represents:

- a) The total number of data points in the dataset
- b) The percentage of data points in each category
- c) The number of data points in each category
- d) The average value of the dataset

3. How data is typically organized in a frequency table?

- a) In ascending order
- b) In descending order
- c) Randomly
- d) Alphabetically

4. Which of the following is not typically included in a frequency table?

- a) Categories or values of the variable
- b) Frequency of each category
- c) Cumulative frequency
- d) Mean of the dataset

5. How is cumulative frequency calculated in a frequency table?

- a) By summing up the frequencies of each category
- b) By dividing the frequency by the total number of data points
- c) By finding the mean of the dataset
- d) By multiplying the frequency by the corresponding value

6. What type of data is most suitable for tabulation in a frequency table?

- a) Qualitative data
- b) Quantitative data

- c) Continuous data
- d) None of the above

7. What is the purpose of calculating relative frequencies in a frequency table?

- a) To determine the mode of the dataset
- b) To compare the frequencies of different categories
- c) To calculate the standard deviation
- d) To estimate missing values in the dataset

8. What is the advantage of using a frequency table to summarize data?

- a) It provides a visual representation of the data distribution
- b) It allows for easy identification of outliers
- c) It simplifies the calculation of statistical measures
- d) All of the above

9. How is the mode of a dataset identified from a frequency table?

- a) By finding the category with the highest frequency
- b) By calculating the mean of the dataset
- c) By sorting the data in ascending order
- d) By dividing the dataset into quartiles

10. In a frequency table, the relative frequency is calculated by:

- a) Dividing the frequency by the sum of all frequencies
- b) Multiplying the frequency by the sum of all frequencies
- c) Dividing the frequency by the total number of data points
- d) Dividing the frequency by the range of the dataset

Grouped Data

11. What is grouped data?

- a) Data that is divided into categories or classes
- b) Data that is sorted in ascending order
- c) Data that contains outliers
- d) Data that is collected from a large sample

12. Why is data grouped?

- a) To simplify data analysis
- b) To remove outliers from the dataset
- c) To increase the size of the dataset

- d) To make the dataset more visually appealing

13. Which of the following is not a common method of grouping data?

- a) Range grouping
- b) Interval grouping
- c) Frequency grouping
- d) Mean grouping

14. What is the purpose of frequency distribution in grouped data?

- a) To summarize the dataset
- b) To calculate the standard deviation
- c) To identify outliers
- d) To estimate missing values

15. How are intervals determined in grouped data?

- a) Based on the maximum and minimum values of the dataset
- b) Based on the mean and median of the dataset
- c) Based on the range and standard deviation of the dataset
- d) Based on the mode and median of the dataset

16. Which statistical measure is commonly used to represent each interval in grouped data?

- a) Mean
- b) Median
- c) Mode
- d) Range

17. What is the purpose of midpoint estimation in grouped data?

- a) To find the average value of each interval
- b) To identify outliers in the dataset
- c) To estimate the total number of data points
- d) To calculate the standard deviation

18. Which of the following is true about the frequency of each interval in grouped data?

- a) It represents the number of data points in each interval
- b) It represents the percentage of data points in each interval
- c) It represents the mean of each interval
- d) It represents the median of each interval

19. How is the cumulative frequency calculated in grouped data?

- a) By summing up the frequencies of each interval
- b) By dividing the frequency by the total number of data points
- c) By multiplying the frequency by the corresponding value
- d) By taking the square root of the frequency

20. What is the purpose of a histogram in grouped data?

- a) To represent the frequency distribution graphically
- b) To calculate the standard deviation
- c) To identify outliers in the dataset
- d) To estimate missing values

21. What is the formula for calculating the midpoint of an interval in grouped data?

- a) (Upper Limit + Lower Limit) / 2
- b) (Upper Limit - Lower Limit) / 2
- c) (Upper Limit × Lower Limit) / 2
- d) (Upper Limit / Lower Limit) / 2

22. Which measure of central tendency is commonly used to represent grouped data?

- a) Mean
- b) Median
- c) Mode
- d) Range

23. Which measure of dispersion is commonly used to represent grouped data?

- a) Range
- b) Standard deviation
- c) Variance
- d) Mean absolute deviation

24. Which of the following is not a common visualization for representing grouped data?

- a) Bar chart
- b) Line graph
- c) Histogram
- d) Pie chart

25. What is the purpose of cumulative frequency in grouped data?

- a) To identify outliers in the dataset

- b) To estimate missing values
- c) To calculate the standard deviation
- d) To determine the total number of data points below a certain value

26. How can the relative frequency be calculated in grouped data?

- a) By dividing the frequency by the total number of data points
- b) By multiplying the frequency by the total number of data points
- c) By dividing the frequency by the sum of all frequencies
- d) By multiplying the frequency by the sum of all frequencies

27. Which measure of central tendency is affected by outliers in grouped data?

- a) Mean
- b) Median
- c) Mode
- d) Range

28. Which of the following is not a method for calculating the mode in grouped data?

- a) Modal class method
- b) Range method
- c) Graphical method
- d) Empirical formula method

29. What is the purpose of class boundaries in grouped data?

- a) To define the range of each interval
- b) To identify outliers in the dataset
- c) To calculate the standard deviation
- d) To estimate missing values

30. Which of the following is true about grouped data?

- a) It provides more detailed information about the dataset
- b) It simplifies data analysis
- c) It increases the accuracy of statistical measures
- d) All of the above

Answer Key

Q. No	Answer	Q. No	Answer	Q. No	Answer
1	a	11	a	21	a

2	c	12	a	22	b
3	a	13	d	23	c
4	d	14	a	24	d
5	a	15	a	25	d
6	a	16	b	26	c
7	b	17	a	27	a
8	d	18	a	28	b
9	a	19	a	29	a
10	c	20	a	30	d

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