Sheet 2 Solution :

1. What does each slice in a pie chart represent?

- a. Frequency
- b. Percentage
- c. Range
- d. Standard deviation

2. When is it appropriate to use a pie chart?

- a. Showing proportions
- b. Comparing individual data points
- c. Representing parts of a whole
- d. Displaying geospatial data

3. What is the primary purpose of a pie chart?

- a. Comparing individual data points
- b. Showing proportions
- c. Representing trends over time
- d. Comparing categories

4. What type of data is typically suitable for a pie chart?

- a. Numerical
- b. Categorical
- c. Time series
- d. Geospatial

5. When is a pie chart considered misleading?

- a. When there are too many categories
- b. When the data is evenly distributed
- c. When it represents a small dataset

- d. When comparing individual data points

6. In a bar chart, what is represented by the length of the bars?

- a. Frequency
- b. Percentage
- c. Range
- d. Standard deviation

7. Which type of data is best represented by a bar chart?

- a. Numerical
- b. Categorical
- c. Time series
- d. Geospatial

8. What is the main difference between a histogram and a bar chart?

- a. The type of data they represent
- b. The presence of gaps between bars
- c. The orientation of the bars
- d. The number of bars

9. When should a bar chart be preferred over a histogram?

- a. When comparing individual data points
- b. When showing proportions
- c. When representing parts of a whole
- d. When displaying the distribution of numerical data

10. What is the primary disadvantage of using a bar chart?

- a. Difficulty in comparing individual data points
- b. Limited to categorical data
- c. Inability to show trends over time
- d. Not suitable for large datasets

11. What type of data visualization is a histogram?

- a. Scatter plot
- b. Line chart
- c. Bar chart
- d. Frequency distribution

12. In a histogram, what is represented on the x-axis?**

- a. Categories
- b. Frequency
- c. Percentage
- d. Range of values

13. What is the primary purpose of a histogram?

- a. Showing proportions
- b. Displaying trends over time
- c. Representing categorical data
- d. Presenting the distribution of numerical data

14. How is the number of bins determined in a histogram?

- a. Subjective choice
- b. Fixed formula
- c. Data range
- d. All of the above

15. When should a histogram be preferred over a bar chart?

- a. When comparing individual data points
- b. When showing proportions
- c. When representing parts of a whole
- d. When displaying the distribution of numerical data

16. **In a histogram, what is typically shown on the y-axis?**

- a. Categories
- b. Frequency

- c. Percentage
- d. Range of values

17. What type of data is commonly visualised using a heatmap?

- a. Categorical
- b. Numerical
- c. Time series
- d. Geospatial

18. In a heatmap, what do the colours represent?

- a. Frequency
- b. Intensity or value
- c. Range
- d. Standard deviation

19. What is a primary advantage of using a heatmap?

- a. Easy to compare individual data points
- b. Effective for visualizing the distribution of values in a matrix
- c. Shows proportions clearly
- d. Good for trend analysis over time

20. What does a heatmap typically represent?

- a. Parts of a whole
- b. Distribution of numerical data
- c. Frequency of categories
- d. Trends over time