Bar Graph

A. Choose the correct answer:

1. A bar graph represents data using

- a) circles b) bars or rectangles
- c) lines d) pictures

2. In a bar graph, the length of each bar represents

- a) frequency or value of data b) the type of data
- c) the total of all values d) the mode of the data

3. What is usually shown on the horizontal axis of a bar graph?

- a) Values or frequencies b) Labels or categories
- c) Total sum d) Both values and categories

4. A bar graph is most useful when the data is

- a) continuousb) non-comparablec) categoricald) in decimal form
- c) categorical d) in decimal form

5. Which of the following is true about a bar graph?

- a) It uses pictorial representations for values
- b) The bars should not touch each other
- c) The bars can only be horizontal
- d) It is used to represent numerical data in a tabular format

B. Write the Missing Terms to Complete the Sentences:

- 1. In a bar graph, the ______ axis represents the categories or labels.
- 2. The height of each bar in a bar graph is proportional to the ______ of the data.
- 3. A bar graph is useful for comparing _____ data.
- 4. The ______ of the bars in a bar graph should be uniform.
- 5. Bar graphs are most effective when data involves ______ categories.

C. Mark each sentence with a True (\checkmark) or False (X):

- 1. Bar graphs are used to represent continuous data.
- 2. Bar graphs should have bars that are of equal width and space between them.
- 3. In a bar graph, the bars should be placed touching each other._____
- 4. A bar graph is the best choice for representing data that is in categories.
- 5. The y-axis in a bar graph represents the categories.

D. Figure out the answers to these questions:

- 1. Draw a bar graph to represent the following data: Number of books read by 5 students: 4, 7, 3, 5, 6.
- A class of 30 students was surveyed about their favorite fruit. The data collected is: Apple 8, Banana 10, Mango 12. Draw the bar graph for this data.
- 3. What is the advantage of using a bar graph over a table to represent data?
- 4. In a bar graph showing the number of students in each grade (1st, 2nd, 3rd, 4th, 5th), if the 3rd grade has the tallest bar, what does that tell you about the number of students in that grade?
- A survey on daily study hours of students gives the following data: 2 hours 5 students, 3 hours 10 students, 4 hours 8 students. Represent this data in a bar graph.

E. Challenge yourself with these questions:

- A survey was conducted to find out the number of hours spent on homework by students. The results are: 1 hour – 4 students, 2 hours – 8 students, 3 hours – 6 students. Create a bar graph to represent this data.
- 2. Explain how you can use a bar graph to compare the populations of different cities.
- Create a bar graph based on the following data: Temperature in a city over the week: Monday - 28°C, Tuesday - 30°C, Wednesday - 32°C, Thursday - 29°C, Friday - 31°C.
- 4. How can you determine the mode of the data using a bar graph?
- 5. What changes would you make in a bar graph if the data were for multiple categories, like different age groups?

F. The bar graph below is showing the heights of six mountain peaks.



Observe the bar graph and answer the following questions.

- A. Which is the highest peak?
- B. What is the difference (in height) between the highest and smallest peak?
- C. Which peak is the second highest?

D. When the heights of the given peaks are written in ascending order, then what is the average of the middle two peaks?

G. Following data gives total marks (out of 600) obtained by five children of a particular class. Represent the data on a bar graph.

Students	Ravi	Rajni	Kabir	Sahil	Rahul	Sania
Marks	450	500	300	360	400	540
Obtained						

H. Use the bar graph to answer the following questions



- a. How many students have dog as a pet?
- b. How many students have dog as a pet?