

## Data Handling and Presentation

### Practice Worksheet — Set 3

|       |          |          |       |
|-------|----------|----------|-------|
| Name: | Class: 6 | Section: | Date: |
|-------|----------|----------|-------|

Instructions: Read each question carefully and answer in the space provided. Total Marks: 45

#### Section A: Fill in the Blanks (10 × 1 = 10 Marks)

- The word 'data' refers to facts, figures or \_\_\_\_\_ collected for a purpose.
- A \_\_\_\_\_ table shows each observation along with the number of times it occurs.
- In a pictograph, the \_\_\_\_\_ or key must always be shown so that the reader understands its meaning.
- If 1 symbol = 4 tractors and a village shows 2 symbols, it has \_\_\_\_\_ tractors.
- A bar graph with bars running left to right is called a graph with \_\_\_\_\_ bars.
- Before drawing a bar graph, we must decide on a suitable \_\_\_\_\_ so that the graph fits neatly on the page.
- The length or height of a bar in a bar graph represents its \_\_\_\_\_.
- When data is very large, using a \_\_\_\_\_ (a number greater than 1) makes pictographs and bar graphs easier to draw.
- Reading a bar graph or pictograph carefully helps us make correct \_\_\_\_\_ about the data.
- Artistic pictures used to present data attractively are called \_\_\_\_\_, but they must not distort the facts.

#### Section B: Multiple Choice Questions (10 × 1 = 10 Marks)

- Which of the following would need actual data collection to answer?  
(a) What is the capital of India? (b) What is the most popular sport in your class? (c) How many days are there in a week? (d) What is 5 + 5?
- A frequency table is most useful for:  
(a) Drawing pictures only (b) Organising counts of repeated observations (c) Writing a story (d) Painting a picture
- If a pictograph shows 2.5 symbols and 1 symbol = 10 people, the number of people shown is:  
(a) 12 (b) 25 (c) 20 (d) 15
- Which axis of a bar graph usually shows numeric values such as frequency?  
(a) Horizontal axis (in most cases) (b) Vertical axis (in most cases) (c) Neither axis (d) Both show only names
- A bar graph comparing the lengths of rivers is best drawn with:  
(a) Vertical bars only (b) Horizontal bars, since length is a horizontal measure (c) No bars at all (d) Circles
- Two bars of the same height in a bar graph indicate:  
(a) Equal frequencies/values (b) Unequal frequencies (c) An error in the graph (d) Nothing in particular
- Which of these is the smallest unit used while counting with tally marks?  
(a) A group of ten (b) A single stroke '|' (c) A group of five only (d) A circle

8. A survey collecting the number of hours students sleep is an example of:  
 (a) Guessing (b) Data collection (c) A bar graph directly (d) A pictograph directly
9. The main purpose of choosing a good scale for a graph is to:  
 (a) Make the graph fit neatly and be easy to read (b) Make the graph colourful (c) Reduce the number of categories (d) Avoid using tally marks
10. Which statement about pictographs is correct?  
 (a) They can never use half symbols (b) They use pictures to represent data, with a fixed scale (c) They are the same as bar graphs (d) They cannot have a title

### Section C: True or False (10 × 1 = 10 Marks)

- Asking classmates about their favourite games is an example of collecting data.
- A frequency table can only be made using pictures, never using tally marks.
- Every pictograph must clearly show its scale or key.
- A pictograph with the key '1 symbol = 10' can never show 25 using a half symbol.
- In a bar graph, taller or longer bars usually mean greater frequency or value.
- Two categories can have the same frequency in a data set.
- Tally marks are always written in groups of ten.
- A well-chosen scale makes a graph easier to read and fit on the page.
- Horizontal bar graphs are commonly used to compare lengths like the lengths of rivers.
- Making data presentations attractive is more important than keeping them accurate.

### Section D: Match the Following (5 × 1 = 5 Marks)

| Column A                     | Column B                                             |
|------------------------------|------------------------------------------------------|
| 1. Vertical bar graph        | a. Best for comparing heights                        |
| 2. Horizontal bar graph      | b. Best for comparing lengths parallel to the ground |
| 3. Frequency                 | c. Count of an observation in a data set             |
| 4. Data collection           | d. Gathering facts, figures or opinions              |
| 5. Half symbol in pictograph | e. Represents half the value of one full symbol      |

### Section E: Solve the Following (10 × 1 = 10 Marks)

- The number of goals scored by a football team in 5 matches was: 2, 0, 3, 2, 1. Prepare a frequency table for this data.
- From Q1, in how many matches did the team score exactly 2 goals?
- A pictograph uses  = 5 books. Section A shows 3 symbols, Section B shows 4.5 symbols. Find the number of books in each section.
- From Q3, find the total number of books in both sections together.

5. A bar graph shows the height of 4 plants (in cm): Plant A – 12, Plant B – 18, Plant C – 9, Plant D – 15. If the scale is 1 unit = 3 cm, find the bar height (in units) for Plant B.
6. Arrange the plant heights from Q5 in ascending order.

7. In a survey of 25 students about their favourite subject, the tally marks were: Maths



, Science



, EVS



. Find the frequency of each subject.

8. From Q7, which subject is the least popular, and what is its frequency?
9. A pictograph shows rainfall using the key '☔ = 20 mm'. If a month shows 3.5 symbols, find the rainfall in mm.
10. The number of chairs in 5 classrooms is: 30, 28, 32, 28, 30. Find the frequency of classrooms having exactly 28 chairs.

**Answer Key — Practice Worksheet — Set 3****Section A: Fill in the Blanks**

1. observations/numbers
2. frequency
3. scale
4. 8
5. horizontal
6. scale
7. frequency/value
8. scale
9. inferences/conclusions
10. infographics

**Section B: Multiple Choice Questions**

1. (b) What is the most popular sport in your class?
2. (b) Organising counts of repeated observations
3. (b) 25
4. (b) Vertical axis (in most cases)
5. (b) Horizontal bars, since length is a horizontal measure
6. (a) Equal frequencies/values
7. (b) A single stroke '|'
8. (b) Data collection
9. (a) Make the graph fit neatly and be easy to read
10. (b) They use pictures to represent data, with a fixed scale

**Section C: True or False**

1. True
2. False
3. True
4. False
5. True
6. True
7. False
8. True
9. True
10. False

**Section D: Match the Following**

- 1-a   2-b   3-c   4-d   5-e

**Section E: Solve the Following**

1.  $0 \rightarrow 1$ ,  $1 \rightarrow 1$ ,  $2 \rightarrow 2$ ,  $3 \rightarrow 1$  (total 5 matches).
2. 2 matches.
3. Section A =  $3 \times 5 = 15$  books; Section B =  $4.5 \times 5 = 22.5 \rightarrow 22-23$  books (typically shown as 22 or 23 depending on rounding used).
4.  $15 + 22$  (or 23)  $\approx 37-38$  books.
5.  $18 \div 3 = 6$  units.
6. Ascending order: 9, 12, 15, 18.
7. Maths = 11, Science = 8, EVS = 6 (total 25).
8. EVS is least popular, with a frequency of 6.
9.  $3.5 \times 20 = 70$  mm.
10. 2 classrooms (28 chairs each).