Introduction to Data Handling

1. **Define the following terms:**

   a. Data - _____

   b. Observation – _____

   c. Frequency – _____

   d. Arrayed data – _____

2. **Represent the scores given below in a frequency distribution table.**

   15, 18, 14, 20, 25, 22, 25, 20, 14, 15, 18, 18, 14, 22, 15, 20, 28, 30, 27, 14, 20, 25, 20, 18, 28, 27, 25, 23, 23, 18, 18, 25, 20, 16, 15, 20, 27, 28, 29, 14

3. **In a Mathematics test, the following marks were obtained by 40 students. Arrange these marks in a table using tally marks.**

   9, 2, 4, 8, 7, 6, 6, 5, 5, 3, 5, 10, 6, 4, 8, 2, 7, 6, 3, 8, 8, 4, 9, 5, 3, 9, 10, 6, 9, 7, 8, 5, 6, 7, 10, 7, 5, 5, 7, 7

   a. Find how many students obtained marks equal to or more than 8.

   b. How many students scored marks below 5?

4. **Anaya threw a dice 40 times and noted the number appearing each time as shown below. Prepare a table using tally marks.**

   2, 4, 6, 5, 5, 4, 6, 5, 2, 5, 3, 6, 4, 5, 5, 2, 6, 6, 5, 2, 2, 3, 3, 4, 6, 3, 5, 6, 6, 5, 6, 2, 6, 3, 4, 6, 3, 5, 2, 6

5. **The final marks of 30 students in science are as follows:**

   54, 62, 49, 61, 79, 69, 56, 99, 68, 91, 76, 89, 78, 38, 85, 59, 61, 49, 63, 57, 45, 59, 53, 65, 98, 59, 71, 40, 51, 61
   Now answer the following:

a. Arrange these marks in the ascending order, 30 to 39 one group and 40-49 second group and so on.

b. What is the highest score?

c. What is the lowest score?

d. If 40 is the pass mark how many students failed?

e. How many students have scored more than 50?

6. **The weights of newborn babies (in kg) in a hospital on a particular day are as follows:**

   2.3, 2.2, 2.1, 2.7, 2.6, 3.0, 2.5, 2.9, 2.8, 3.1, 2.5, 2.8, 2.7, 2.9, 2.4

   Now,

   a. Rearrange the weights in descending order.
   b. Determine the highest weight.
   c. Determine the lowest weight.
   d. How many babies weigh more than 2.7 kg?
   e. How many babies weigh below 2.4 kg?

7. **Prepare a frequency table of the following scores obtained by 50 students in a test.**

   52, 61, 31, 52, 47, 47, 52, 59, 48, 62, 17, 43, 27, 54, 49, 17, 24, 37, 49, 52, 52, 72, 47, 49, 77, 61, 63, 63, 69, 51, 39, 48, 37, 41, 64, 29, 63, 61, 32, 71, 52, 49, 69, 57, 43, 44, 26, 47, 67, 53

8. **Complete the following table:**

S.No.	Tally Marks	observations
a.	IIII	
b.	II	
c.	ЖI ЖI III	
d.	IIIII IIII	
e.	ЖI ЖI ЖI ЖI II	

9. Choose the correct option.

A. Sum of all the frequencies is equal to the_____.

    a. given data ☐

    b. total no. of observations ☐

    c. total no. of data ☐

B. Representation of numerical data by using picture symbols is called_____.

    a. pictograph ☐

    b. bar diagram ☐

    c. pic chart ☐

C. The initially collection of observations is called _____.

    a. data ☐

    b. frequency ☐

    c. raw data ☐

D. To represent the data with the help of tally marks and frequency after making a table is known as_____.

    a. frequency table ☐

    b. frequency distribution ☐

    c. data ☐

E. Representation of data in ascending or descending order is called_____.

    a. frequency ☐

    b. data collection ☐

    c. array ☐

10. **Following are the number of members in 20 families in a colony:**

6, 8, 6, 4, 3, 5, 7, 8, 6, 4, 4, 7, 7, 5, 5, 8, 5, 3, 8, 4
Organise the above data and answer the following:

a. What is the family size?

b. How many families are of smallest size?

c. What is the most common family size?

11. **A dice is a cube whose six faces are marked with number from 1 to 6, one number on each face. The result obtained in 25 throws are 5, 4, 3, 2, 1, 1, 2, 5, 4, 6, 6, 6, 3, 2, 1, 4, 3, 2, 1, 4, 3, 2, 1, 5, 6, 5, 2, 1 and 3. Prepare a frequency distribution table.**

12. **The heights in centimetres of 30 students of a class are given below:**

138, 130, 132, 138, 140, 138, 140, 152, 132, 140
155, 140, 132, 138, 140, 150, 138, 140, 150, 155
150, 152, 155, 140, 138, 132, 155, 138, 140, 132

Arrange the data and prepare a frequency distribution table.
Using the table, answer the following questions:

a. How many students have height more than 150 cm?

b. What is the least height of the students?

c. How many students have the least height?

d. How many students have a height less than or equal to 138 cm?