1. The number of goals scored by a football team in 10 matches is $3,0,1,5,4,3,3,2,4,3$.
a) What is be frequency of 4?
b) Which number has the maximum frequency?
c) In how many matches did the team score 0 goals?
d) What is the range of the given data?
2. Prepare an ungrouped frequency distribution table for the following data of blood sugar level of 40 persons from a locality

| 69 | 67 | 67 | 67 | 68 | 70 | 66 | 70 | 66 | 66 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 67 | 65 | 68 | 68 | 68 | 66 | 67 | 66 | 68 | 67 |
| 65 | 66 | 65 | 65 | 68 | 70 | 66 | 70 | 66 | 67 |
| 69 | 67 | 67 | 67 | 66 | 67 | 70 | 65 | 70 | 70 |

3. The following data represent the departments of 60 employees of a firm. Make an ungrouped frequency distribution table for the following data.

| QA | Legal | F\&A | Legal | S\&M | F\&A | S\&M | F\&A | QA | F\&A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F\&A | F\&A | Legal | HR | R\&D | F\&A | S\&M | S\&M | Legal | HR |
| Tech | QA | Tech | R\&D | QA | HR | HR | Legal | Tech | HR |
| S\&M | QA | QA | Tech | Legal | QA | Legal | QA | Legal | QA |
| S\&M | Tech | F\&A | S\&M | Tech | S\&M | Legal | S\&M | HR | R\&D |
| QA | R\&D | QA | F\&A | QA | Legal | R\&D | Legal | Legal | F\&A |

a) Legal: legal Department
b) Tech: Technical Support
c) HR: Human Resource and Planning
d) QA: Quality Assurance
e) R\&D: Research \& Development
f) F\&A: Finance and Accounting
g) S\&M: Sales \& S\&M
4. The following data represent the marks obtained by 30 students of a class in a 50 marks Mathematics paper.

| 38 | 43 | 30 | 29 | 13 | 16 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 38 | 31 | 46 | 23 | 22 | 19 |
| 35 | 44 | 5 | 25 | 20 | 23 |
| 42 | 45 | 33 | 23 | 23 | 20 |
| 33 | 41 | 44 | 29 | 20 | 21 |

Prepare a grouped frequency distribution table for the data using the classes as $1-10,11-20 \ldots .$.
5. Consider the following data that represents the distance in kilometers, from school to home, of students of class VIII and answer the questions given below.

| Distance in kilometers | $0-2$ | $2-4$ | $4-6$ | $6-8$ | $8-10$ | $10-12$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of students | 3 | 8 | 12 | 14 | 9 | 4 |

a) How many students stay more than 6 km away [rom the school?
b) Which class interval has the maximum number of students?
c) How many students stay within 4 km distance from School?
d) How many students are surveyed in this data?
6. The following data gives the profit made by 50 companies selling finished goods for 50 companies in the year 2014.

| Profit limit (in lakhs) | $200-250$ | $250-300$ | $300-350$ | $350-400$ | $400-450$ | $450-500$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Companies | 6 | 10 | 24 | 20 | 6 | 4 |

a) Write the class interval in which maximum companies made profit?
b) Write the class interval in which minimum companies made profit?
c) How many companies made profit in the class interval of $250-350$ lakhs?
d) How many companies made less than 300 lakhs profit?

1. The following data represents marks secured by Ramesh in five subjects. Represent the data using a bar graph.

| Subject | Mathematics | Social Science | Science | Hindi | English |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Marks (out of 100) | 60 | 65 | 70 | 60 | 55 |

2. The donation amount in rupees given by 5 individuals to NGO are shown in the adjoining bar graph. Read the graph and answer the following questions.

a) Who gave maximum donation?
b) Who gave minimum donation?
c) How much more donation did Abraham give than Zena?
d) What is the total amount of donation collected?
3. In the given table the percentage of stamps of each country in Eric's and Susan's collection is tabulated. Draw a double bar graph to represent the data.

| Country | India | France | Austria | Sweden | Belgium |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Eric | 40 | 20 | 15 | 10 | 10 |
| Susan | 30 | 15 | 20 | 10 | 15 |

4. The height of 50 students in a class was recorded and the data was tabulated as follows. Draw a histogram to represent the data.

| Height ( in inches) | $50-55$ | $55-60$ | $60-65$ | $65-70$ | $70-75$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of Students | 9 | 11 | 18 | 8 | 4 |

5. A training institute trains its members for a 100 m race. The adjoining histogram shows the time taken by the members in a particular 100 m race.

a) How many members took more than 16 seconds to complete the race?
b) What is the range of lime taken by maximum members?
c) What is the total number of members trained?
d) How many members took less than 10 secs to complete the race?
6. In an activity organized by an NGO, 5 groups participated in selling handmade articles. Draw a pie chart to represent the data of the number of articles sold by each group.

| Groups | A | B | C | D | E |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of Articles Sold | 25 | 50 | 35 | 23 | 47 |

7. The adjoining pie chart shows Veena's expenditure in a month. The total expense incurred is Rs, 40000 . Read the pie chart and answer the following questions. Monthly Expenses

## Monthly Expenses


a) How much does Veena spend on food?
b) In which category does Veena have the maximum expenditure?
c) In which category does Veena have the minimum expenditure?
d) What is the ratio of expenses on outings to savings?
8. The following data represents the number of eggs laid by hens in poultry in a month. Represent the data using a histogram.

| Number of eggs | less than 5 | less than 10 | less than 15 | less than 20 | less than 25 | less than 30 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of hens | 3 | 10 | 32 | 80 | 180 | 10 |

1. Complete the following table,

| Class Interval | Class Mark | Lower limit | Upper limit | Tally Marks | Frequency |
| :---: | :---: | :---: | :--- | :--- | :---: |
| $20-30$ |  |  |  | INW INW III |  |
|  | 35 | 30 |  |  | 7 |
|  | 45 |  | 50 |  | 8 |
|  |  | 50 | 60 | II |  |

2. Match the following.

|  | I |  | II |
| ---: | :--- | ---: | :--- |
| a) | Pie chart | i. | No space between the two bars for same observation |
| b) | Bar graph | ii. | No space between all the bars. |
| c) | Histogram | iii. | Circular graphs with the central angle corresponding <br> in proportion to frequency. |
| d) | Double bar grph | iv. | Equal space between any two bars. |

3. Draw a bar graph for the following data that represents the favorite musical instrument of 25 individuals.

| Instrument | Guitar | Flute | Trumpet | Drum | Violin |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of people | 6 | 4 | 2 | 8 | 5 |

4. The following data displays the grade obtained by 90 students in a class. Draw a double bar graph to represent the following data.

|  | A | B | C | D |
| :--- | :---: | :---: | :---: | :---: |
| Boys | 21 | 14 | 8 | 3 |
| Girls | 18 | 20 | 4 | 2 |

5. The following table displays the duration of 15 calls, of a person working in a call centre, on a particular day. Draw a histogram to represent the data.

| Time in minutes | $0-2$ | $2-4$ | $4-6$ | $6-8$ | $8-10$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of calls | 5 | 3 | 4 | 2 | 1 |

6. The following data display the number of people of different age groups at $n$ family function. Draw a pie chart to represent the data.

| Age in years | Less than 10 | $11-20$ | $21-30$ | $31-40$ | $41-50$ | 51 above |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of people | 21 | 10 | 12 | 15 | 9 | 5 |

