**Practical -1**

**Aim: Introduction to Excel**

1. Create a Data set

2. Sort Data

3. Apply Filter

4. Write Formula

5. Remove duplicates

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**Practical -2**

**Aim: Data Entry And Manipulation**

1. Create Data Set

2. Text To Column

3. Add Data using Form Tool

4. Transpose Data

5. Use VLOOKUP

6. Pivot Table

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**Practical -3**

**Aim: Data Validation in Excel**

1. Specify a valid range of value for a cell
2. Specify a valid List of value for a cell
3. Specify a valid Birth of value for a cell

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**Practical-4**

**Aim: Diagram and Graph**

1. Excel Program to plot Bar Chart

| Name | Math | Science |
| --- | --- | --- |
| Om | 45 | 39 |
| Adit | 26 | 45 |
| Siddhi | 36 | 39 |
| Manasi | 37 | 46 |
| Yash | 29 | 26 |
| Komal | 45 | 34 |

2. Excel Program to plot Histogram

| Student | Marks |
| --- | --- |
| A | 12 |
| B | 18 |
| C | 22 |
| D | 25 |
| E | 29 |
| F | 33 |
| G | 35 |
| H | 37 |
| I | 41 |
| J | 55 |
| K | 57 |
| L | 60 |
| M | 63 |
| N | 65 |

3. Excel Program to plot pie Chart

Using the data of Bar chart – Add a Total Column to your table in excel < Use the Name and Column  and the total Column to Make a pie chart

4. Boxplot

12,45,65,85,45,47,23,26,24,12,11,54,56,47,36,45,47

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**Practical -5**

**Aim : Measure of central Tendency**

1. Calculate Mean, Median and Mode for the following data

a). 15,16,18,19,20,24

b) 45,48,47,43,42

c)100,105,115,115,106

| Class interval | Frequency |
| --- | --- |
| 1 | 100 |
| 2 | 104 |
| 3 | 106 |
| 4 | 107 |
| 5 | 101 |
| 6 | 103 |
| 7 | 105 |

2. Find Mean

3.Find Median and Mode

| Class interval | Frequency |
| --- | --- |
| 0-100 | 13 |
| 100-200 | 18 |
| 200-300 | 27 |
| 300-400 | 34 |
| 400-500 | 23 |
| 500-600 | 17 |
| 600-700 | 10 |

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**Practical-6**

**Aim: Measures of Dispersion**

Calculate Range, Interquartile range ,variance, Standard Deviation , Skewness and Kurtosis .

| Student Name | Marks |
| --- | --- |
| A | 45 |
| B | 52 |
| C | 50 |
| D | 60 |
| E | 65 |
| F | 70 |
| G | 75 |
| H | 80 |
| I | 85 |
| J | 90 |
| K | 78 |
| L | 65 |
| M | 95 |
| N | 65 |
| O | 46 |
| P | 59 |
| Q | 84 |
| R | 61 |
| S | 95 |
| T | 86 |

1.

2.

| List Of Thing | Price |
| --- | --- |
| Book | 58 |
| Pen | 65 |
| Pencil | 48 |
| Calculator | 52 |
| Highlighter | 43 |
| Eraser | 62 |
| Scissors | 45 |

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**Practical-7**

**Aim: Correlation**

Find Correlation

1.

| Study Hours | Test Score |
| --- | --- |
| 2 | 30 |
| 3 | 40 |
| 4 | 50 |
| 5 | 60 |
| 6 | 70 |
| 7 | 80 |

2.

| Study Hours | Test score |
| --- | --- |
| 2 | 80 |
| 3 | 70 |
| 4 | 60 |
| 5 | 50 |
| 6 | 40 |
| 7 | 30 |

3. Formula:- Correlation: =CORREL (array1, array2)

| Study hours | Test score |
| --- | --- |
| 2 | 55 |
| 3 | 60 |
| 4 | 48 |
| 5 | 75 |
| 6 | 53 |
| 7 | 64 |

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**Sign:**

**Practical-8**

**Aim: Regression**

Q1. Calculate the Slopes , y  intercept  and the regression line

| X | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| y | 1.59 | 2.87 | 4.15 | 5.33 | 6.61 | 7.99 | 9.02 | 10.31 | 11.75 | 13.12 |

Q2. Calculate the Slopes , y  intercept  and the polynomial regression

| X | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| y | 3.2 | 4.9 | 7.1 | 8 | 10.3 | 11.6 | 13.8 | 15.4 | 17.2 | 18.7 |

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**Practical 9**

**Regression – 2**

1. Multiple Linear Regression in Excel

| Y | X1 | X2 |
| --- | --- | --- |
| 3.1 | 1 | 5.2 |
| 6 | 2 | 6.8 |
| 8.7 | 3 | 7 |
| 7.9 | 4 | 9.1 |
| 9.8 | 5 | 8.5 |
| 12.2 | 6 | 11 |
| 11.6 | 7 | 12.4 |
| 14.7 | 8 | 13.5 |
| 15.9 | 9 | 14.2 |
| 17.5 | 10 | 15 |

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**Practical-10**

**Aim: Design a survey  form ,collect primary data and analyse**

Age (Number)

Gender(Male/female/other)

Satisfaction(1 to 5)

Monthly Spend(in Rs)

Feature(price/ quality/ service / location)

Recommend(yes/no)

(Ask your friends to answer)

| Age | Gender | Satisfaction | Monthly Spend | Feature | Recommend |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
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Find

1. Mean Age
2. Median Satisfactions
3. Max Spend
4. Bar chart for Age
5. Line regression (satisfaction and Monthly Spend ) (find m & c and regressions line)

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