Experiment-1.2

Student Name: **UID:**
Branch: BE CSE **Section/Group:**
Semester: 6th **Date of Performance:**
Subject Name: DM Lab **Subject Code:** 20CSP-376

1. **Aim/Overview of the practical:**
   To perform the statistical analysis of data.

2. **Apparatus / Simulator Used:**
   - Windows 7 or above
   - R Studio

3. **Objective:**
   - Represent the reading of file using R Studio.
   - Displaying the pattern on Weka Tool.
   - Find mean, median and standard deviation of particular columns.

4. **Script and Output:**

Code:

```
library(Rweka)
N=read.arff("Student_frame.arfr')
print(N)
cat("\n")                          #used to skip lines
 print(head(N,2))                  #used to print first 2 rows
print(tail(N,3))                   #used to print first 3rows
cat("\n")
dim(N)                             #used for finding dimensions
names(N)
N["Name")
```

```
cat("\n")
 max(Math_Marks)                    #maximum from column
min(Science_Marks)                  #minimum from column

cat("\n")
mean(Eng_Marks )                        # mean
Median lath_Marks)                      # median
(cial_sci_Marks)                        # standard deviation

cat("\n")

summary(N)
```

Output:

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function | Addins

Source

Console | Terminal | Background Jobs

R 4.2.2 · C:/Users/G.K.Computer Service/Desktop/arff Files/

```
> N=read.arff("Student_frame.arff")
> print(N)
   Roll_No       Name Eng_Marks Math_Marks Science_Marks Social_sci_Marks
1      101 Gurwinder         95          88            86               79
2      102      Rahul         62          63            54               32
3      103      Sneha         67          99            58               48
4      104       Iqra         80          80            50               60
5      105       Bill         67          67            67               67
6      106      Honey         89          89            89               89
7      107        Jot         66          66            66               66
8      108     Edward         72          76            72               75
9      109       Kesh         80          73            82               92
10     110       Rani         45          75            75               95
> cat("\n")

> print(head(N,2))
   Roll_No       Name Eng_Marks Math_Marks Science_Marks Social_sci_Marks
1      101 Gurwinder         95          88            86               79
2      102      Rahul         62          63            54               32
> print(tail(N,3))
   Roll_No    Name Eng_Marks Math_Marks Science_Marks Social_sci_Marks
8      108 Edward         72          76            72               75
9      109    Kesh         80          73            82               92
10     110    Rani         45          75            75               95
> cat("\n")

> dim(N)
[1] 10  6
> names(N)
[1] "Roll_No"          "Name"             "Eng_Marks"        "Math_Marks"
[5] "Science_Marks"    "Social_sci_Marks"
> N["Name"]
        Name
1  Gurwinder
2      Rahul
3      Sneha
4       Iqra
5       Bill
6      Honey
7        Jot
8     Edward
9       Kesh
10      Rani
> cat("\n")

> max(Math_Marks)
[1] 99
> min(Science_Marks)
[1] 50
> cat("\n")

> mean(Eng_Marks )
[1] 72.3
> median(Math_Marks)
[1] 75.5
> sd(Social_sci_Marks)
[1] 20.0779
> cat("\n")
```

```
> summary(N)
    Roll_No          Name              Eng_Marks       Math_Marks   Science_Marks
 Min.   :101.0   Length:10          Min.   :45.00   Min.   :63.0   Min.   :50.00
 1st Qu.:103.2   Class :character   1st Qu.:66.25   1st Qu.:68.5   1st Qu.:60.00
 Median :105.5   Mode  :character   Median :69.50   Median :75.5   Median :69.50
 Mean   :105.5                      Mean   :72.30   Mean   :77.6   Mean   :69.90
 3rd Qu.:107.8                      3rd Qu.:80.00   3rd Qu.:86.0   3rd Qu.:80.25
 Max.   :110.0                      Max.   :95.00   Max.   :99.0   Max.   :89.00
 Social_sci_Marks
 Min.   :32.0
 1st Qu.:61.5
 Median :71.0
 Mean   :70.3
 3rd Qu.:86.5
 Max.   :95.0
>
```