

ROLL NO : 727822TUAD049
EXPERIMENT NO : 5

PROBLEM :

1. Sort the data and construct the frequency table for the following data and also find its mean, median and mode.

(i) 3,7,9,12,3,5,6,8,4,12

INPUT:

```
x=c(3,7,9,12,3,5,6,8,4,12)
sort(x)
mean(x)
median(x)
y=table(x)
names(y)[which(y==max(y))]
```

OUTPUT :

```
> x=c(3,7,9,12,3,5,6,8,4,12)
> sort(x)
[1] 3 3 4 5 6 7 8 9 12 12
> mean(x)
[1] 6.9
> median(x)
[1] 6.5
> y=table(x)
> names(y)[which(y==max(y))]
```

(ii) 24,32,16,24,33,39,42,38,37,20,22,21,20,20,22,22.

INPUT:

```
x=c(24,32,16,24,33,39,42,38,37,20,22,21,20,20,22,22)
sort(x)
mean(x)
median(x)
y=table(x)
names(y)[which(y==max(y))]
```

OUTPUT :

```
> x=c(24,32,16,24,33,39,42,38,37,20,22,21,20,20,22,22)
> sort(x)
[1] 16 20 20 20 21 22 22 22 24 24 32 33 37 38 39 42
> mean(x)
[1] 27
> median(x)
[1] 23
> y=table(x)
> names(y)[which(y==max(y))]
```

(iii) 98,82,83,97,98,93,94,93,94,82,88.

INPUT:

```
x=c(98,82,83,97,98,93,94,93,94,82,88)
sort(x)
mean(x)
median(x)
y=table(x)
names(y)[which(y==max(y))]
```

OUTPUT :

```
> x=c(98,82,83,97,98,93,94,93,94,82,88)
> sort(x)
[1] 82 82 83 88 93 93 94 94 97 98 98
> mean(x)
[1] 91.09091
> median(x)
```

```
[1] 93  
> y=table(x)  
> names(y)[which(y==max(y))]  
[1] "82" "93" "94" "98"
```