

1. Assume that the time taken to bake a batch of cookies is normally distributed with mean 45 minutes and standard deviation 2 minutes.

I . Generate a random sample of size 25 for the baking time.

```
1 setwd("C:\\Users\\ASUS\\Desktop\\IT24100850Lab_9")
2
3 #1
4 times <- c(44,47,45,46,43,45,44,48,46,47,45,46,44,45,47,46,45,44,46,47,45,46,44,45,46)
5
> setwd("C:\\Users\\ASUS\\Desktop\\IT24100850Lab_9")
> times <- c(44,47,45,46,43,45,44,48,46,47,45,46,44,45,47,46,45,44,46,47,45,46,44,45,46)
```

II . Test whether the average baking time is less than 46 minutes at a 5% level of significance.

```
6
7 #2
8 t.test(times, mu=46, alternative = "less")

> t.test(times, mu=46, alternative = "less")

      One Sample t-test

data:  times
t = -2.2811, df = 24, p-value = 0.01585
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.86001
sample estimates:
mean of x
 45.44
```