IT2120 - Probability and Statistics

Lab Sheet 06

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Exercise

01)

i)

```
getwd()
setwd("C:\\Users\\IT24100344\\Desktop\\IT24100344")

#Q1)i
#Binomial Distribution
#Here, random variable X has binomial distribution with n=50 and p=0.85

```

```
> getwd()
[1] "C:/Users/IT24100344/Documents"
> setwd("C:\\Users\\IT24100344\\Desktop\\IT24100344")
> #Q1)i
> #Binomial Distribution
> #Here, random variable X has binomial distribution with n=50 and p=0.85
```

ii)

```
#Q1)ii
1- pbinom(47, 50, 0.85,lower.tail = TRUE)
pbinom(47, 50, 0.85,lower.tail = FALSE)
```

```
> #Q1)ii
> 1- pbinom(47, 50, 0.85,lower.tail = TRUE)
[1] 0.01418852
> pbinom(47, 50, 0.85,lower.tail = FALSE)
[1] 0.01418852
```

02)

i)

```
#Q2)i
#Number of calls received in a call center on a per hour.
```

```
> #Q2)i
> #Number of calls received in a call center on a per hour.
```

ii)

```
15  #Q2)ii
16  #Poisson Distribution
17  #Here, random variable X has poisson distribution with lambda=12
```

```
> #Q2)ii
> #Poisson Distribution
> #Here, random variable X has poisson distribution with lambda=12
```

iii)

```
19  #Q2)iii)
20  dpois(15, 12)
```

```
> #Q2)iii)
> dpois(15, 12)
[1] 0.07239112
```