

IT24100850

Samanthilaka W.K.D

PS_Lab06

1. i)

```
1 #setting Directry
2 setwd("C:\\Users\\it24100850\\Desktop\\IT24100850_Lab06")
3 getwd()
4 #Exercise 2
5 #Question 1
6 #Part 1
7 #Binomial Distribution
8 #Here, random variable X has binomial distribution with n = 50 and p=0.85
```

ii)

```
9
10 #Part 2
11 #what is the probability that at least 47 students passed the test?
12 dbinom(47,50,0.85)
```

```
> #Part 2
> #what is the probability that at least 47 students passed the test?
> dbinom(47,50,0.85)
[1] 0.03185806
> |
```

2. I)

```
4 #Question 2
5 #Part 1
6 #what is the random variable (x) for the problem?
7 #---the number of customer calls received in one hour.
```

35 (Top Level) ↕

ii)

```
18
19 #Part2
20 #what is the distribution of x?
21 #Here, random variable x has poisson distribution with lamda = 12
22
```

100 (Top Level) ↕

iii)

```
#Part 3
#what is the probability that exactly 15 calls are received in an hour?
dpois(15,12)
```

```
> #Part 3
> #what is the probability that exactly 15 calls are received in an hour?
> dpois(15,12)
[1] 0.07239112
```