

1. i)

```
setwd("C:\\Users\\asus\\Documents\\2 Year 1 Sem\\PS\\Lab Practical\\Lab 6")
getwd()
#Exercise 2
#Question 1
#Part 1
#Binomial Distribution
#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
```