

IT24101356

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PS_Lab06

1. i)

```
1 #setting Directry
2 setwd("C:\\Users\\it24101984\\Desktop\\IT24101984_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
9 |
```

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.
55 (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
406 (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
```