

Sri Lanka Institute of Information Technology



Lab Submission
Lab Sheet 06

IT24103902

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Artificial Intelligence and Machine Learning

IT2011

B.Sc. (Hons) in Information Technology

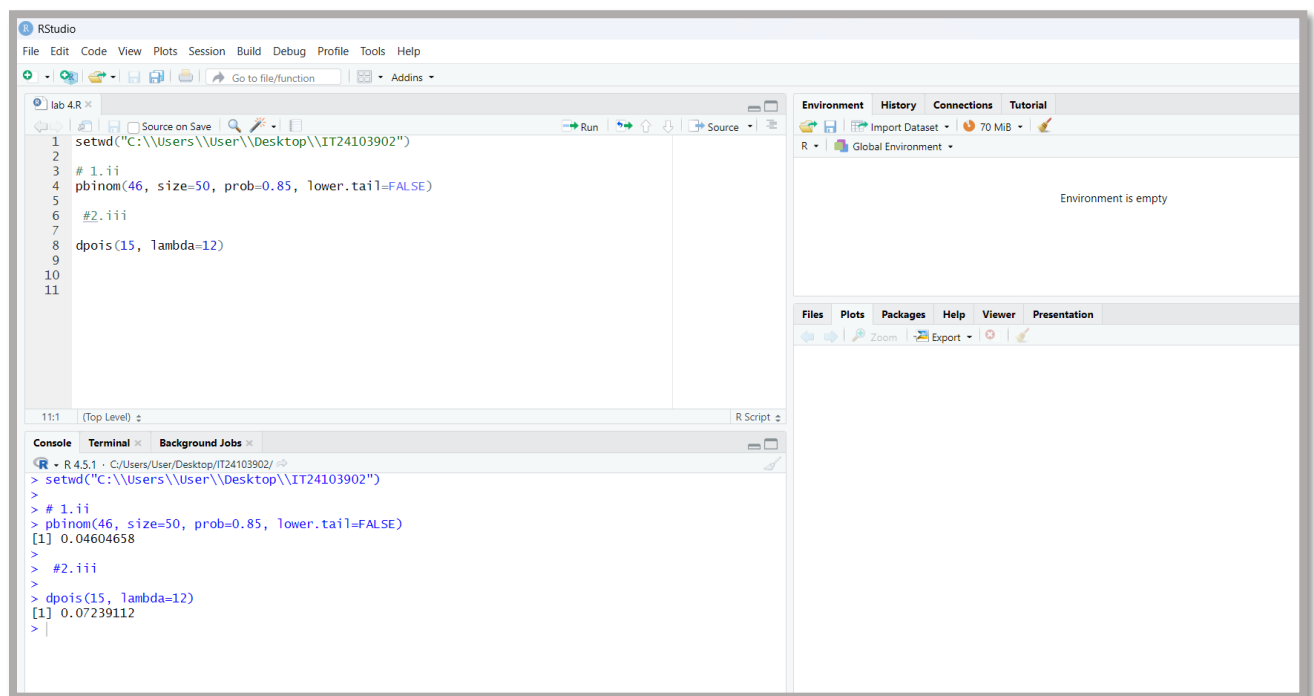
01)

i) The random variable follows a Binomial Distribution.

02)

i) The random variable X is the number of customer calls received by the call center in a given hour.

ii) X follows a Poisson Distribution.



The screenshot shows the RStudio interface with the following content:

```
1 setwd("C:\\Users\\User\\Desktop\\IT24103902")
2
3 # 1.ii
4 pbinom(46, size=50, prob=0.85, lower.tail=FALSE)
5
6 #2.iii
7
8 dpois(15, lambda=12)
9
10
11
```

The Console window shows the execution of the code:

```
R - R 4.5.1 - C:/Users/User/Desktop/IT24103902/
> setwd("C:\\Users\\User\\Desktop\\IT24103902")
>
> # 1.ii
> pbinom(46, size=50, prob=0.85, lower.tail=FALSE)
[1] 0.04604658
>
> #2.iii
>
> dpois(15, lambda=12)
[1] 0.07239112
>
```