Lab 07

IT24100919

```r
###Question 01
#Uniform Distribution
#Here,random variable X follows a uniform distribution with a=0 and b=40.
punif(25,min=0,max=40,lower.tail=TRUE)-punif(10,min=0,max=40,lower.tail=TRUE)

###Question 02
#Exponential Distribution
#Here,random variable X has exponential distribution with lambda=0.34.
pexp(2,rate=0.34,lower.tail=TRUE)

###Question 03
#NOrmal Distribution
#Here, random variable X normal distribution with mean=100 and standard deviation=15

#Part 1
1-pnorm(130,mean=100,sd=15,lower.tail=TRUE)
pnorm(130,mean=100,sd=15,lower.tail=FALSE)

#Part 2
qnorm(0.95,mean=100,sd=15,lower.tail=TRUE)
```

```
> ###Question 01
> #Uniform Distribution
> #Here,random variable X follows a uniform distribution with a=0 and b=40.
> punif(25,min=0,max=40,lower.tail=TRUE)-punif(10,min=0,max=40,lower.tail=TRUE)
[1] 0.375
> ###Question 02
> #Exponential Distribution
> #Here,random variable X has exponential distribution with lambda=0.34.
> pexp(2,rate=0.34,lower.tail=TRUE)
[1] 0.493383
>
> ###Question 03
> ###Question 03
> #NOrmal Distribution
> #Part 1
> 1-pnorm(130,mean=100,sd=15,lower.tail=TRUE)
[1] 0.02275013
> pnorm(130,mean=100,sd=15,lower.tail=FALSE)
[1] 0.02275013
> #Part 2
> qnorm(0.95,mean=100,sd=15,lower.tail=TRUE)
[1] 124.6728
>
```