

Sri Lanka Institute of Information Technology



Lab Submission
Worksheet No-7

IT24103538

Hettiarachchi H .P.P.

Probability and Statistics - IT2120

B.Sc. (Hons) in Information Technology

```

> #EXERCISE
>
> # 1)  $P(10 \leq X \leq 25)$ 
>
> punif(25,min=0,max=40,lower.tail=TRUE)-punif(10,min=0,max=40,lower.tail=TRUE)
[1] 0.375
>
>
> # 2)  $P(X \leq 2)$ 
>
> pexp(2,rate=1/3,lower.tail=TRUE)
[1] 0.4865829
>
>
>
> # 3) i.
>
> 1 - pnorm(130,mean =100,sd=15,lower.tail=TRUE)
[1] 0.02275013
>
> # or
>
> pnorm(130,mean=100,sd=15,lower.tail=FALSE)
[1] 0.02275013

> # ii.
> qnorm(0.95,mean=100,sd=15,lower.tail=TRUE)
[1] 124.6728

```