Faculty of Computing
Year 2 Semester 1 (2025)
IT2120 – Probability and Statics
Sheron - IT24104354
Lab sheet 07

Exercise

Question 1

```
1  setwd("C:\\Users\\minol\\OneDrive - Sri Lanka Institute of Information Technology\\Desktop\\IT24104354PSLab6")
2
3  #Question 01
4  #Uniform distribution
5  (25 - 10) / 40
6
```

```
> setwd("C:\\Users\\minol\\OneDrive - Sri Lanka Institute of Information Technology\\Desktop\\IT24104354PSLab6")
> (25 - 10) / 40
[1] 0.375
```

Question 2

```
7   #Question 02
8   #Exponential distribution
9   lambda <- 1/3
10  pexp(2, rate = lambda, lower.tail = TRUE)
11
```

```
> lambda <- 1/3
> pexp(2, rate = lambda, lower.tail = TRUE)
[1] 0.4865829
```

Question 3

Part 1

```
12  #Question 03
13  #Normal distribution
14  |
15  #Part 01
16  pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)
17
```

```
> pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)
[1] 0.02275013
```

Part 2

```
17
18  #Part 02
19  qnorm(0.95, mean = 100, sd = 15, lower.tail = TRUE)
20
```

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