Sri Lanka Institute of Information Technology

Lab Submission
Worksheet No 06

IT24102210

Masachchi U.R.
Fundamentals of Computing | IT1140

B.Sc. (Hons) in Information Technology

```
 2  getwd()
 3
 4  # Question 1: Binomial |
 5  n <- 50
 6  p <- 0.85
 7  prob_at_least_47 <- 1 - pbinom(46, size = n, prob = p)
 8  cat("1. ii. P(X ≥ 47) =", round(prob_at_least_47, 4), "\n")
 9
10
11  # Question 2: Poisson
12  lambda <- 12
13  prob_exactly_15 <- dpois(15, lambda = lambda)
14  cat("2. iii. P(X = 15) =", round(prob_exactly_15, 4), "\n")
```

```
> # Question 1: Binomial
> n <- 50
> p <- 0.85
> prob_at_least_47 <- 1 - pbinom(46, size = n, prob = p)
> cat("1. ii. P(X ≥ 47) =", round(prob_at_least_47, 4), "\n")
1. ii. P(X ≥ 47) = 0.046
> # Question 2: Poisson
> lambda <- 12
> prob_exactly_15 <- dpois(15, lambda = lambda)
> cat("2. iii. P(X = 15) =", round(prob_exactly_15, 4), "\n")
2. iii. P(X = 15) = 0.0724
>
```

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Values

i	5L
lambda	12
max_ind	4L
max_index	4L
n	50
p	0.85
prob_at_least_47	0.0460465788923019
prob_exactly_15	0.0723911201466387
vec	num [1:5] 10 45 23 99 56
x	num [1:3] 1 2 3