

Sri Lanka Institute of Information Technology



Lab Submission
Worksheet No 06

IT24103989

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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
> |

```

R | Global Environment

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