

# Stochastic Processes, Quiz 1, 2024 Fall

## Solution and Grading

- Duration: 30 minutes
  - Weight: 7% of final grade
  - Closed material, No calculator
- 
- Name: \_\_\_\_\_
  - Student ID: \_\_\_\_\_
  - E-mail: \_\_\_\_\_ @seoultech.ac.kr
- 
- Write legibly.
  - Justification is necessary unless stated otherwise.

Suppose  $X \sim \exp(3)$ . Evaluate  $\mathbb{E}[\min(X, 5)]$ . [7pts]

- $\mathbb{E}[\min(X, 5)] = \frac{1}{3}(1 - e^{-15})$  (See the Lecture 2, page 4 for detailed procedure)

Difficulty: Easy

Grading Scheme: Only one minor error may earn 3pts. No partial credit if two or more errors are found.