



# COMSATS University Islamabad

Attock Campus

## Department of Mathematics

### Quiz # 04

**Class:** BS(SE)-VIII

**Subject:** Stochastic Processes

**Instructor:** Dr. Atiq ur Rehman

**Date:** 19-11-2025

**Course Code:** CSC456

**Marks:** 10

**Question # 1:** (a) Define simple random walk.

(b) Draw the diagram of simple random walk having 15 steps with  $P(X_{n+1} = X_n + 1) = \frac{2}{3}$ .

**Question # 2:** State and prove Chapman-Kolmogorov theorem.

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