Habib University
Course Code: MATH 402
Course Title: Applied Stochastic Processes
Instructor's name: Dr. M. Shahid Shaikh

| Examination: Assignment #3 | Given: 29 November 2023 |
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| Total Marks: 100 | Due: 8 December 2023 |

**Instructions:**

1. Please type the answers or write neatly in hand.
2. Upload your PDF file (if you write in hand, scan and convert to PDF) to Canvas.
4. No late submission will be accepted.

I. Solve the following end-of-chapter problems from the 2nd edition of Bertsekas & Tsitsiklis.

1. Section 7.1 Problem 2,
2. Section 7.1 Problem 3.

II. Solve the following end-of-chapter problems from the 3rd edition of Leon-Garcia. You may write Python programs if it helps you decipher the progress of the Chains, or the probability distributions or the powers of the probability transition matrices.

11.9, 11.20, 11.22, 11.23, 11.24, 11.30 (a), 11.37 (a), 11.37 (b), 11.41, 11.42.