

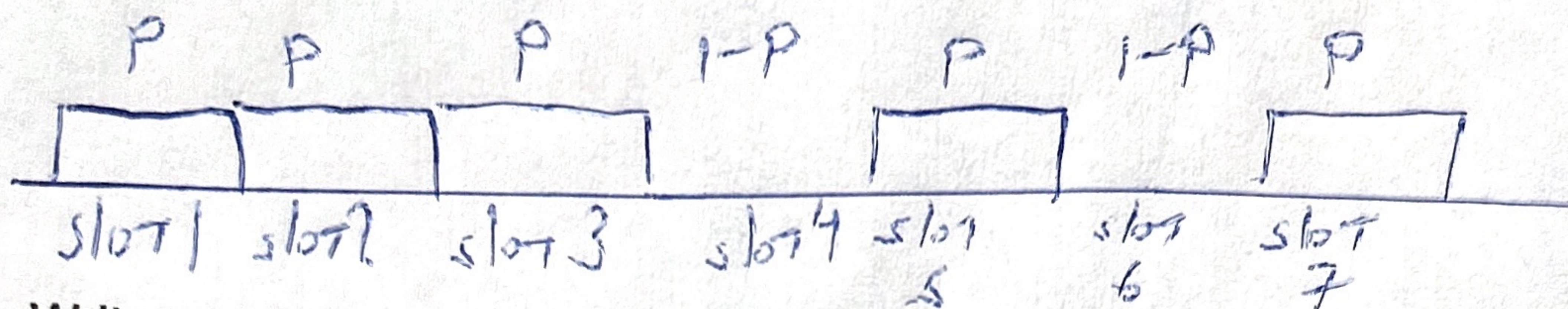
Name: _____

Homework 1 ESE 346

Robertazzi Fall 2024

Please type/write answers on this sheet. Submit as pdf file if you can.

Consider a Bernoulli process. Each time slot has a single packet with independent probability p and no packet with independent probability $1-p$.



- Write an expression for the probability of 10 consecutive packets in ten slots occurring?
- Write an expression for the specific pattern shown in the diagram above occurring?
- Write an expression for the probability of 5 packets and two empty slots occurring in any pattern/order.