

DISCRETE TIME QUEUES

In a general scenario we have seen that the inter-arrival and inter-service times follow a continuous distribution or are deterministic in nature. But to the complicated and irregular service mechanisms in telecommunication networks, nowadays, required an approach whereby the time intervals are discrete in nature or the inter-arrival and service times follow a discrete probability distribution such as geometric distribution (for arrival of say two types of customers); discrete uniform distribution (where we have a closed system with N identical components) etc.. In this part of the lab we shall explore discrete-time models with non-deterministic service times. The inter-arrival times and the service times are discrete random variables taking on positive or non-negative integral values.