Abstract

A single server Markovian queue is considered. The arriving units are served in batches by using Accessibility and Non-Accessibility rules with varying service rates. The expressions for the steady state probabilities when the server is busy as well as idle are derived. The mean and variance for the number of units in the queue are obtained. The expected waiting time of units is also attained. Numerical results for number of units in the queue are computed for various values of $\sigma$ and exhibited the corresponding graphs when the remaining parameters are fixed.

References


**Index Terms**

Computer Science  
Applied Mathematics

**Keywords**