

Chapter 5

Conclusions and Remarks

In the thesis, we have studied the $C_k/C_m/1/N$ open queueing system containing finite number of customers, N . We list the stationary probabilities of $C_k/C_m/1/N$ by using the product-form method and compare it with a traditional method. We use the Matlab software to solve the stationary probability. We suggest some problems for further investigation. For example, one can discuss the precision and stability of the product-form method. In this case, we can choose other algorithms to solve the linear nonhomogeneous system consisting of equations (2.21) \sim (2.25). We also suggest that the methods presented here may be extended to a multi-server open system containing finite number of customers with phase type interarrival and service times distributions.