## Solution to Problem 5.6

Applying either the convolution algorithm or MVA, we can get the following solution.

| For $Q_{1}$ | Mean Queue Length $=0.215188$ <br> Mean Waiting Time $=0.074276$ <br> Mean Throughput $=0.507190$ <br> Visit Ratio $=1$ |
| :---: | :---: |
| For $Q_{2}$ | Mean Queue Length $=0.084750$ <br> Mean Waiting Time $=0.020970$ <br> Mean Throughput $=0.312766$ <br> Visit Ratio $=0.61667$ |
| For $Q_{3}$ | Mean Queue Length $=0.774200$ <br> Mean Waiting Time $=1.111678$ <br> Mean Throughput $=0.295859$ <br> Visit Ratio $=0.58333$ |
| For $Q_{4}$ | Mean Queue Length $=4.925900$ <br> Mean Waiting Time $=7.918800$ <br> Mean Throughput $=0.496620$ <br> Visit Ratio $=0.97917$ |

