# Performance Evaluation of Computer Networks
# Assignment #6

1. A web server has one dual core CPU and one disk. The average service demands of http requests at the CPU and disk are 50 ms and 80 ms, respectively. Let $\alpha(1) = 1, \alpha(2) = 1.4, \alpha(3) = 1.8$ . For simplicity, let the maximum number of simultaneous connections be 3.
    a. What is the utilization CPU and disk?
    b. What is the system throughput?
    c. What is the system response time?

2. Consider a web server consisting of one CPU and two identical disks. Let the service demand of an http request at CPU and disks be 150 ms and 200 ms, respectively. Assume that the server operates with maximum two threads. Use Flow Equivalent Server method and find the system throughput and system response time.