

Question 1

```
set ns [new Simulator]

set tracefile [open wired.tr w]
$ns trace-all $tracefile
set namfile [open wired.nam w]
$ns namtrace-all $namfile

set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
set n3 [$ns node]
$ns duplex-link $n0 $n2 2Mb 10ms DropTail
$ns duplex-link $n1 $n2 2Mb 10ms DropTail
$ns duplex-link $n2 $n3 1.7Mb 20ms DropTail

set udp [new Agent/UDP]
set null [new Agent/Null]
$ns attach-agent $n0 $udp
$ns attach-agent $n1 $null
$ns attach-agent $n2 $null
$ns connect $udp $null
set tcp [new Agent/TCP]
set sink [new Agent/TCPSink]
$ns attach-agent $n2 $tcp
$ns attach-agent $n3 $sink
$ns connect $tcp $sink

set cbr [new Application/Traffic/CBR]
$cbr attach-agent $udp

set ftp [new Application/FTP]
$ftp attach-agent $tcp

$ns at 1.0 "$cbr start"
$ns at 2.0 "$ftp start"

$ns at 10.0 "finish"
proc finish {} {
    global ns tracefile namfile
    $ns flush-trace
    close $tracefile
    close $namfile
    exit 0
}
puts "Simulation is starting..."
$ns run
```