**PROGRAM 1**

set ns [new Simulator]

set nf [open pg1.nam w]

set tf [open pg1.tr w]

$ns trace-all $tf

$ns namtrace-all $nf

set n0 [$ns node]

set n1 [$ns node]

set n2 [$ns node]

set n3 [$ns node]

$n0 label "source0/udp0"

$n1 label "source1/udp1"

$n2 label "Router"

$n3 label "destination/null"

$ns color 1 "red"

$ns color 2 "green"

$ns duplex-link $n0 $n2 200Mb 10ms DropTail

$ns duplex-link $n1 $n2 100Mb 5ms DropTail

$ns duplex-link $n2 $n3 1Mb 1000ms DropTail

$ns queue-limit $n0 $n2 10

$ns queue-limit $n1 $n2 10

set udp0 [new Agent/UDP]

set udp1 [new Agent/UDP]

set cbr0 [new Application/Traffic/CBR]

set cbr1 [new Application/Traffic/CBR]

$ns attach-agent $n0 $udp0

$ns attach-agent $n1 $udp1

$cbr0 attach-agent $udp0

$cbr1 attach-agent $udp1

$udp0 set class\_ 1

$udp1 set class\_ 2

$cbr0 set packetSize\_ 500

$cbr0 set interval\_ 0.005

set null0 [new Agent/Null]

$ns attach-agent $n3 $null0

$ns connect $udp0 $null0

$ns connect $udp1 $null0

proc finish {} {

global nf ns tf

$ns flush-trace

close $nf

close $tf

exec nam pg1.nam &

exit 0

}

$ns at 0.1 "$cbr0 start"

$ns at 0.2 "$cbr1 start"

$ns at 1 "finish"

$ns run