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**Semester - 3**

**Course- BTECH (CSE)**

**Batch – B**

**DCCN LAB WORK**

**Aim :-** Create a network consisting of three nodes n0 to n2 and add a traffic link to n0-n1 and n0-n2 by using TCL scripts. Prepare a word document, it should include source code, and output.

Code :-

```
set ns [ new Simulator ]
set nf [open out.nam w]
$ns namtrace-all $nf
proc finish { } {
global ns nf
$ns flush-trace
close $nf
exec nam -a out.nam &
exit 0
}
```

```
set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
$ns duplex-link $n0 $n1 1Mb 10ms DropTail
$ns duplex-link $n0 $n2 1Mb 10ms DropTail
set udp0 [new Agent/UDP]
$ns attach-agent $n0 $udp0
set cbr0 [new Application/Traffic/CBR]
$cbr0 set packetSize 500
$cbr0 set interval 0.005
$cbr0 attach-agent $udp0
set null0 [new Agent/Null]
$ns attach-agent $n1 $null0
$ns connect $udp0 $null0
set udp1 [new Agent/UDP]
$ns attach-agent $n0 $udp1
set cbr1 [new Application/Traffic/CBR]
$cbr1 set packetSize 500
$cbr1 set interval 0.005
$cbr1 attach-agent $udp1
set null1 [new Agent/Null]
$ns attach-agent $n2 $null1
```

\$ns connect \$udp1 \$null1

\$ns at 0.5 "\$cbr0 start"

\$ns at 4.5 "\$cbr0 stop"

\$ns at 0.5 "\$cbr1 start"

\$ns at 4.5 "\$cbr1 stop"

\$ns at 5.0 "finish"

\$ns run

## Code Snippet:-

```
yash@yash:~$ gedit lab4.tcl
yash@yash:~$ ns lab4.tcl
yash@yash:~$ gedit lab4.tcl
yash@yash:~$ ns lab4.tcl
yash@yash:~$ gedit lab4.tcl
yash@yash:~$ ns lab4.tcl
wrong # args: should be "o3 self class proc node agent"
(Simulator attach-agent line 1)
Invoked from within
"$ns attach-agent $n1 $n2 $null0"
(file "lab4.tcl" line 23)
yash@yash:~$ ns lab4.tcl
wrong # args: should be "o3 self class proc node agent"
(Simulator attach-agent line 1)
Invoked from within
"$ns attach-agent $n1 $n2 $null0"
(file "lab4.tcl" line 23)
yash@yash:~$ gedit lab4.tcl
1 set ns [ new Simulator ]
2 set nf [open out.nam w]
3 $ns namtrace-all $nf
4 proc finish { } {
5 global ns nf
6 $ns flush-trace
7 close $nf
8 exec nam -a out.nam &
9 exit 0
10 }
11 set n0 [$ns node]
12 set n1 [$ns node]
13 set n2 [$ns node]
14 $ns duplex-link $n0 $n1 1Mb 10ms DropTail
15 $ns duplex-link $n0 $n2 1Mb 10ms DropTail
16 set udp0 [new Agent/UDP]
17 $ns attach-agent $n0 $udp0
18 set cbr0 [new Application/Traffic/CBR]
19 $cbr0 set packetSize 500
20 $cbr0 set interval 0.005
21 $cbr0 attach-agent $udp0
22 set null0 [new Agent/Null]
23 $ns attach-agent $n1 $null0
24 $ns connect $udp0 $null0
25 set udp1 [new Agent/UDP]
26 $ns attach-agent $n0 $udp1
27 set cbr1 [new Application/Traffic/CBR]
28 $cbr1 set packetSize 500
29 $cbr1 set interval 0.005
30 $cbr1 attach-agent $udp1
31 set null1 [new Agent/Null]
32 $ns attach-agent $n2 $null1
33 $ns connect $udp1 $null1
34 $ns at 0.5 "$cbr0 start"
35 $ns at 4.5 "$cbr0 stop"
36 $ns at 0.5 "$cbr1 start"
37 $ns at 4.5 "$cbr1 stop"
38 $ns at 5.0 "finish"
39 $ns run
```

## Code Output:-

