FOR PROBLEM-1

Copy first.cc file in folder “1” of our solution folder into the scratch directory of your NS3 installation.

Execute the script using the following command
./waf --run scratch/first

FOR PROBLEM-2

Copy second.cc file in folder “2” of our solution folder into the scratch directory of your NS3 installation.

Execute the script using the following command
./waf --run scratch/second

Start gnuplot by typing the following command on terminal
gnuplot

Then execute the following set of commands (in the gnuplot mode) to obtain the lossVsTime plot :-
reset
set xlabel “Time (in sec)”
set ylabel “%age of packets lost”
plot “lossVsTime.txt” with linesp

FOR PROBLEM-3

Copy third.cc file in folder “3” of our solution folder into the scratch directory of your NS3 installation.

Execute the script using the following command
./waf --run scratch/third

Start gnuplot by typing the following command on terminal
gnuplot

Then execute the following set of commands (in the gnuplot mode) to obtain the Receiver Rates plot :-

```
reset
set term pngcairo
set output "Receive_Rates.png"
set title "Receive Rates"
set xlabel "Time"
```

set ylabel "Rate in bps"
plot "Recv0.dat" with dots,"Recv1.dat" with dots, "Recv2.dat" with dots, "Recv3.dat" with dots, "Recv4.dat" with dots

Queue-Size Graph:

reset
set term pngcairo
set output "QueueSize.png"
set title "Queue"
set xlabel "Time"
set ylabel "Size"
set yrange [0:15]
plot "queue.dat" using 1:3 with points, "drop.dat" using 1:3 with point

Congestion-Window Graph:

reset
set term pngcairo
set output "Congestion Window.png"
set title "Congestion Window"
set xlabel "Time"
set ylabel "Window Size"
plot "Cwnd0.dat" with dots,"Cwnd1.dat" with dots, "Cwnd2.dat" with dots, "Cwnd3.dat" with dots, "Cwnd4.dat" with dots

FOR PROBLEM-4

Copy fourth1.cc file in folder “4” of our solution folder into the scratch directory of your NS3 installation.

Execute the script using the following command
./waf --run scratch/fourth1

Then execute the following command to obtain plot1.png and plot2.png
gnuplot plot1.plt
gnuplot plot2.plt

Further, copy fourth2.cc file in folder “4” of our solution folder into the scratch directory of your NS3 installation.

Execute the script using the following command
./waf --run scratch/fourth2

Then execute the following command to obtain plot3.png and plot4.png
gnuplot plot3.plt
gnuplot plot4.plt