---- Stop and Wait Network Simulator Version 1.1 ------

Enter the number of messages to simulate: 50

Enter packet loss probability [enter 0.0 for no loss]:0.2

Enter packet corruption probability [0.0 for no corruption]:0.2

Enter average time between messages from sender's layer5 [> 0.0]:10

Enter TRACE:2

EVENT time: 6.965711, type: 1, fromlayer5 entity: 0

packet sent from A with message aaaaaaaaaaaaaaaaaaaa and seq number 0

checksum A is 940

EVENT time: 12.374607, type: 2, fromlayer3 entity: 1

received packet from A with message aaaaaaaaaaaaaaaaaaaa, sequence number 0

at B, packet with message aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa and sequence number 0 sent to layer 5 i.e.

application layer

ack/nack sent from B with acknum 0

TOLAYER3: packet being corrupted

EVENT time: 17.132755, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 19.661861, type: 1, fromlayer5 entity: 0

checksum A is 961

TOLAYER3: packet being corrupted

EVENT time: 26.965710, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message aaaaaaaaaaaaaaaaaaa and seq number 0

TOLAYER3: packet being corrupted

EVENT time: 27.956409, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 0

EVENT time: 34.126026, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 0

base A moved to 1

EVENT time: 35.720585, type: 1, fromlayer5 entity: 0

packet sent from A with message cccccccccccccc and seq number 2

checksum A is 982

EVENT time: 35.751038, type: 1, fromlayer5 entity: 0

checksum A is 1003

TOLAYER3: packet being corrupted

EVENT time: 37.509491, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 1, got 0

ack/nack sent from B with acknum 0

EVENT time: 40.330696, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknow 0

EVENT time: 46.636116, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 0
TOLAYER3: packet being lost

EVENT time: 54.126026, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being corrupted

EVENT time: 54.153332, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 1, got 2 ack/nack sent from B with acknum 0

TOLAYER3: packet being corrupted

EVENT time: 54.530895, type: 1, fromlayer5 entity: 0

packet sent from A with message eeeeeeeeeeeeeeeee and seq number 4 $\,$

checksum A is 1024

TOLAYER3: packet being corrupted

EVENT time: 61.167454, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 62.302151, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 0
TOLAYER3: packet being corrupted

EVENT time: 62.529587, type: 1, fromlayer5 entity: 0

TOLAYER3: packet being corrupted

EVENT time: 68.595535, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 68.982552, type: 2, fromlayer3 entity: 1

application layer

ack/nack sent from B with acknum 1
TOLAYER3: packet being lost

EVENT time: 74.126022, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

packet sent from A with message ccccccccccccccc and seq number ${\bf 2}$

packet sent from A with message eeeeeeeeeeeeeeeee and seq number 4

TOLAYER3: packet being lost

EVENT time: 75.324211, type: 2, fromlayer3 entity: 1

received packet from A with message ccccccccccccccc, sequence number 2

at B, packet with message ccccccccccccccc and sequence number 2 sent to layer 5 i.e.

application layer

ack/nack sent from B with acknum 2

TOLAYER3: packet being lost

EVENT time: 78.470917, type: 1, fromlayer5 entity: 0

packet sent from A with message gggggggggggggggggggggggggggggggand seq number 6

checksum A is 1066

TOLAYER3: packet being lost

EVENT time: 82.812309, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 2

EVENT time: 88.482117, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 2

base_A moved to 3

EVENT time: 91.740295, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 2

EVENT time: 96.726509, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 2

EVENT time: 97.782043, type: 1, fromlayer5 entity: 0

checksum A is 1087

EVENT time: 99.981918, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 2

EVENT time: 101.990982, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 2

EVENT time: 103.674950, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 3, got 2

ack/nack sent from B with acknum 2

EVENT time: 105.496231, type: 1, fromlayer5 entity: 0

packet sent from A with message iiiiiiiiiiiiiiiiiii and seq number 8

checksum A is 1108

TOLAYER3: packet being lost

EVENT time: 106.365082, type: 1, fromlayer5 entity: 0

packet sent from A with message jjjjjjjjjjjjjjj and seq number 9

checksum A is 1129

TOLAYER3: packet being corrupted

EVENT time: 106.888252, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 2

EVENT time: 108.482117, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message ddddddddddddddddddd and seq number 3

packet sent from A with message eeeeeeeeeeeeeeeee and seq number 4

packet sent from A with message fffffffffffffffffff and seg number 5

packet sent from A with message gggggggggggggggggggggggggggggggand seq number 6

packet sent from A with message hhhhhhhhhhhhhhhhhhhhh and seq number 7

TOLAYER3: packet being corrupted

packet sent from A with message jjjjjjjjjjjjjjj and seq number 9

EVENT time: 110.861771, type: 2, fromlayer3 entity: 1

received packet from A with message dddddddddddddddddddd, sequence number 3

application layer

ack/nack sent from B with acknum 3

EVENT time: 112.086861, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 3

base_A moved to 4

EVENT time: 114.737541, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 4, got 5

ack/nack sent from B with acknum 3

EVENT time: 115.866570, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 3

EVENT time: 124.072327, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 4, got 7

ack/nack sent from B with acknum 3

EVENT time: 125.703087, type: 1, fromlayer5 entity: 0

packet sent from A with message kkkkkkkkkkkkkkkkkkkkkkk and seq number 10

checksum A is 1150

EVENT time: 130.203293, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 3

EVENT time: 132.086853, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message eeeeeeeeeeeeeeee and seg number 4

packet sent from A with message fffffffffffffffff and seq number 5

TOLAYER3: packet being corrupted

EVENT time: 134.020935, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 3

TOLAYER3: packet being lost

EVENT time: 138.196091, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 4, got 3

ack/nack sent from B with acknum 3
TOLAYER3: packet being lost

EVENT time: 144.758972, type: 1, fromlayer5 entity: 0

putting packet number 11 into buffer since outside the window size of 8

EVENT time: 146.071991, type: 2, fromlayer3 entity: 1

received packet from A with message eeeeeeeeeeeeeeeeee, sequence number 4

at B, packet with message eeeeeeeeeeeeeeeeee and sequence number 4 sent to layer 5 i.e.

application layer

ack/nack sent from B with acknum 4

EVENT time: 147.841934, type: 2, fromlayer3 entity: 1

application layer

ack/nack sent from B with acknum 5

TOLAYER3: packet being corrupted

EVENT time: 151.103561, type: 2, fromlayer3 entity: 1

application layer

ack/nack sent from B with acknum 6

EVENT time: 152.086853, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message eeeeeeeeeeeeeeee and seq number 4

TOLAYER3: packet being lost

TOLAYER3: packet being corrupted

TOLAYER3: packet being corrupted

packet sent from A with message iiiiiiiiiiiiiiiiii and seq number 8

packet sent from A with message jijjjjjjjjjjjjjj and seg number 9

packet sent from A with message kkkkkkkkkkkkkkkkkkkkkkkk and seq number 10

EVENT time: 153.374359, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 4 base A moved to 5

EVENT time: 153.991257, type: 1, fromlayer5 entity: 0

putting packet number 12 into buffer since outside the window size of 8

EVENT time: 156.361115, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 157.867813, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 6

base_A moved to 7

EVENT time: 158.758270, type: 2, fromlayer3 entity: 1

application layer

ack/nack sent from B with acknum 7
TOLAYER3: packet being lost

EVENT time: 165.172623, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 7

EVENT time: 169.703995, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

base_A moved to 8

EVENT time: 173.633255, type: 1, fromlayer5 entity: 0

packet sent from A with message nnnnnnnnnnnnnnnnnnnnnn and seq number 13

checksum A is 1213

EVENT time: 174.667313, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 8, got 9

ack/nack sent from B with acknum 7

EVENT time: 177.595963, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

EVENT time: 184.014816, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 8, got 10

ack/nack sent from B with acknum 7

EVENT time: 186.626511, type: 2, fromlayer3 entity: 1

not received expected packet from A, expected 8, got 4 ack/nack sent from B with acknum 7

EVENT time: 188.453934, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 7

EVENT time: 189.703995, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message iiiiiiiiiiiiiiiiii and seq number 8

TOLAYER3: packet being lost

packet sent from A with message jjjjjjjjjjjjjjj and seq number 9

packet sent from A with message kkkkkkkkkkkkkkkkkkkkkkkk and seq number 10

TOLAYER3: packet being lost

EVENT time: 191.173157, type: 1, fromlayer5 entity: 0

packet sent from A with message oooooooooooooooo and seq number 14

checksum A is 1234

EVENT time: 192.662674, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 8, got 5

ack/nack sent from B with acknum 7

EVENT time: 195.715073, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

EVENT time: 196.093643, type: 1, fromlayer5 entity: 0

putting packet number 15 into buffer since outside the window size of 8

EVENT time: 197.404922, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

EVENT time: 198.924316, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 8, got 6

ack/nack sent from B with acknum 7

EVENT time: 203.782684, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

EVENT time: 208.150589, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 7

EVENT time: 209.703995, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message iiiiiiiiiiiiiiiiii and seg number 8

TOLAYER3: packet being corrupted

packet sent from A with message jjjjjjjjjjjjjjj and seq number 9

TOLAYER3: packet being corrupted

packet sent from A with message kkkkkkkkkkkkkkkkkkkkkk and seq number 10

packet sent from A with message mmmmmmmmmmmmmmmmmmmmmmmmmmmmm and seq number 12

TOLAYER3: packet being lost

TOLAYER3: packet being corrupted

packet sent from A with message ooooooooooooooooo and seq number 14

packet sent from A with message ppppppppppppppppppp and seq number 15

TOLAYER3: packet being corrupted

EVENT time: 209.955948, type: 2, fromlayer3 entity: 1

layer

ack/nack sent from B with acknum 8

EVENT time: 214.865555, type: 1, fromlayer5 entity: 0

putting packet number 16 into buffer since outside the window size of 8

EVENT time: 215.329071, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 7

EVENT time: 216.932800, type: 2, fromlayer3 entity: 0

received acknowledgment from B with acknum 8

base_A moved to 9

EVENT time: 217.732880, type: 2, fromlayer3 entity: 1

received packet from A with message jjjjjjjjjjjjjj, sequence number 9

at B, packet with message jjjjjjjjjjjjjjj and sequence number 9 sent to layer 5 i.e. application

layer

ack/nack sent from B with acknum 9

EVENT time: 221.560120, type: 1, fromlayer5 entity: 0

putting packet number 17 into buffer since outside the window size of 8

EVENT time: 222.974686, type: 2, fromlayer3 entity: 1

ack/nack sent from B with acknum 10
TOLAYER3: packet being corrupted

TOLAYER3: packet being lost

EVENT time: 226.680511, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 11, got 4 ack/nack sent from B with acknum 10

EVENT time: 229.029129, type: 1, fromlayer5 entity: 0

putting packet number 18 into buffer since outside the window size of 8

EVENT time: 230.286285, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 235.205292, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 10

EVENT time: 239.313751, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 10 base_A moved to 11

packet sent from A with message sssssssssssssssssss and seq number 18 TOLAYER3: packet being lost

EVENT time: 239.489563, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 10

EVENT time: 240.442673, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 10

EVENT time: 244.320389, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 10

EVENT time: 244.363129, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 11, got 8

ack/nack sent from B with acknum 10 TOLAYER3: packet being lost

EVENT time: 247.932220, type: 1, fromlayer5 entity: 0

putting packet number 19 into buffer since outside the window size of 8

EVENT time: 250.080261, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 11, got 9

ack/nack sent from B with acknum 10

EVENT time: 252.649460, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 10

EVENT time: 252.731995, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 11, got 10

ack/nack sent from B with acknum 10

EVENT time: 253.958908, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 10

EVENT time: 259.313751, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message |||||||||||||||| and seq number 11

packet sent from A with message mmmmmmmmmmmmmmmmmmmmmmmm and seq number 12

TOLAYER3: packet being corrupted

packet sent from A with message rrrrrrrrrrrrrrrrrrrrrrrrrrrrrr and seq number 17 packet sent from A with message sssssssssssssssss and seq number 18

EVENT time: 259.549805, type: 2, fromlayer3 entity: 1

received packet from A with message ||||||||||||||, sequence number 11

at B, packet with message ||||||||||||||| and sequence number 11 sent to layer 5 i.e. application

layer

ack/nack sent from B with acknum 11

EVENT time: 259.566254, type: 1, fromlayer5 entity: 0

putting packet number 20 into buffer since outside the window size of 8

EVENT time: 265.952179, type: 1, fromlayer5 entity: 0

putting packet number 21 into buffer since outside the window size of 8

EVENT time: 267.267731, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 13

ack/nack sent from B with acknum 11

TOLAYER3: packet being corrupted

EVENT time: 273.434723, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 274.263702, type: 1, fromlayer5 entity: 0

putting packet number 22 into buffer since outside the window size of 8

EVENT time: 276.674225, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 9 $\,$

ack/nack sent from B with acknum 11

EVENT time: 279.260559, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 10 ack/nack sent from B with acknum 11

EVENT time: 282.940674, type: 1, fromlayer5 entity: 0

putting packet number 23 into buffer since outside the window size of 8

EVENT time: 286.421295, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 286.489532, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 11

ack/nack sent from B with acknum 11

EVENT time: 287.373413, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

TOLAYER3: packet being lost

packet sent from A with message ssssssssssssssssss and seq number 18 packet sent from A with message ttttttttttttttttttttttttttt and seq number 19 TOLAYER3: packet being lost

EVENT time: 290.777039, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 291.771667, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 13 ack/nack sent from B with acknum 11

EVENT time: 293.423187, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 14 ack/nack sent from B with acknum 11

EVENT time: 294.538940, type: 1, fromlayer5 entity: 0 putting packet number 24 into buffer since outside the window size of 8

EVENT time: 296.468231, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 299.991760, type: 2, fromlayer3 entity: 1 corrupt packet detected at B ack/nack sent from B with acknum 11

EVENT time: 300.642059, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 301.473236, type: 1, fromlayer5 entity: 0

putting packet number 25 into buffer since outside the window size of 8

EVENT time: 305.753937, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 11

EVENT time: 307.373413, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message ssssssssssssssssss and seq number 18 packet sent from A with message ttttttttttttttttttttttttttt and seq number 19 TOLAYER3: packet being lost

EVENT time: 308.806702, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 313.109283, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 314.026154, type: 1, fromlayer5 entity: 0

putting packet number 26 into buffer since outside the window size of 8

EVENT time: 314.929138, type: 1, fromlayer5 entity: 0

putting packet number 27 into buffer since outside the window size of 8

EVENT time: 315.669220, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 10

ack/nack sent from B with acknum 11

EVENT time: 317.649933, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 11 ack/nack sent from B with acknum 11

acky nack sent from b with ackidin 11

EVENT time: 320.128326, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 322.096100, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 326.976349, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 11 TOLAYER3: packet being lost

EVENT time: 326.981476, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 327.373413, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

TOLAYER3: packet being lost

packet sent from A with message rrrrrrrrrrrrrrrrrrrrr and seq number 17 packet sent from A with message ssssssssssssssssss and seq number 18 packet sent from A with message tttttttttttttttttttttt and seq number 19

EVENT time: 331.197998, type: 1, fromlayer5 entity: 0

putting packet number 28 into buffer since outside the window size of 8

EVENT time: 333.078918, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 14

ack/nack sent from B with acknum 11

EVENT time: 335.368988, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 11

EVENT time: 339.661743, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 340.760986, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 16

ack/nack sent from B with acknum 11

EVENT time: 343.326752, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 344.384003, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 12, got 11

ack/nack sent from B with acknum 11

EVENT time: 347.373413, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message ppppppppppppppppppp and seq number 15

TOLAYER3: packet being lost

TOLAYER3: packet being lost

packet sent from A with message rrrrrrrrrrrrrrrrrrrrrrrrrrrrrr and seq number 17 packet sent from A with message sssssssssssssssss and seq number 18

TOLAYER3: packet being corrupted

packet sent from A with message tttttttttttttttttttttttttt and seq number 19

EVENT time: 347.414886, type: 1, fromlayer5 entity: 0

putting packet number 29 into buffer since outside the window size of 8

EVENT time: 350.832214, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 351.293274, type: 2, fromlayer3 entity: 1

received packet from A with message mmmmmmmmmmmmmmmmmmmm, sequence

number 12

at B, packet with message mmmmmmmmmmmmmmmmmmmmmm and sequence number 12

sent to layer 5 i.e. application layer ack/nack sent from B with acknum 12

EVENT time: 355.685974, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 11

EVENT time: 359.301849, type: 1, fromlayer5 entity: 0

putting packet number 30 into buffer since outside the window size of 8

EVENT time: 360.594147, type: 2, fromlayer3 entity: 1

i.e. application layer

ack/nack sent from B with acknum 13
TOLAYER3: packet being corrupted

EVENT time: 362.047607, type: 2, fromlayer3 entity: 1

i.e. application layer

ack/nack sent from B with acknum 14
TOLAYER3: packet being corrupted

EVENT time: 362.441681, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 12

base A moved to 13

packet sent from A with message uuuuuuuuuuuuuuuuuu and seq number 20

EVENT time: 365.502106, type: 1, fromlayer5 entity: 0

putting packet number 31 into buffer since outside the window size of 8

EVENT time: 369.368896, type: 2, fromlayer3 entity: 1

ack/nack sent from B with acknum 15
TOLAYER3: packet being corrupted

EVENT time: 369.953888, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 371.130127, type: 1, fromlayer5 entity: 0

putting packet number 32 into buffer since outside the window size of 8

EVENT time: 375.225006, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 376.354645, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 15 TOLAYER3: packet being lost

EVENT time: 380.614014, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 16, got 17 ack/nack sent from B with acknum 15

EVENT time: 380.795471, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 382.441681, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

TOLAYER3: packet being corrupted

packet sent from A with message sssssssssssssss and seq number 18

TOLAYER3: packet being lost

packet sent from A with message ttttttttttttttttttttttttttt and seq number 19

packet sent from A with message uuuuuuuuuuuuuuuuuuuu and seq number 20

TOLAYER3: packet being lost

EVENT time: 386.627899, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 15

EVENT time: 386.724213, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 16, got 18 ack/nack sent from B with acknum 15

TOLAYER3: packet being corrupted

EVENT time: 387.239105, type: 1, fromlayer5 entity: 0 putting packet number 33 into buffer since outside the window size of 8

EVENT time: 391.752808, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 395.449219, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 15

EVENT time: 399.187622, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 15

EVENT time: 403.322571, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 16, got 12 ack/nack sent from B with acknum 15

EVENT time: 404.559082, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 15

EVENT time: 405.212463, type: 1, fromlayer5 entity: 0

putting packet number 34 into buffer since outside the window size of 8

EVENT time: 406.627899, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message rrrrrrrrrrrrrrrrrr and seq number 17

TOLAYER3: packet being corrupted

packet sent from A with message sssssssssssssss and seq number 18

TOLAYER3: packet being lost

packet sent from A with message ttttttttttttttttttttttttttttttt and seq number 19

TOLAYER3: packet being corrupted

packet sent from A with message uuuuuuuuuuuuuuuuuuuuuu and seq number 20 packet sent from A with message vvvvvvvvvvvvvvvvvvv and seq number 21

packet sent from A with message wwwwwwwwwwwwwwwwwwwww and seq number 22 packet sent from A with message xxxxxxxxxxxxxxxxxxxxx and seq number 23

EVENT time: 413.292236, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 16, got 14 ack/nack sent from B with acknum 15

EVENT time: 415.377716, type: 1, fromlayer5 entity: 0

putting packet number 35 into buffer since outside the window size of 8

EVENT time: 416.828094, type: 1, fromlayer5 entity: 0

putting packet number 36 into buffer since outside the window size of 8

EVENT time: 419.888519, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 15

EVENT time: 423.031769, type: 2, fromlayer3 entity: 1

i.e. application layer

ack/nack sent from B with acknum 16

EVENT time: 426.627899, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

packet sent from A with message rrrrrrrrrrrrrrrrrrrrrrrr and seq number 17

TOLAYER3: packet being corrupted

packet sent from A with message ssssssssssssssss and seq number 18 $\,$

packet sent from A with message tttttttttttttttttttttttttttt and seq number 19

packet sent from A with message uuuuuuuuuuuuuuuuuu and seq number 20

packet sent from A with message vvvvvvvvvvvvvvvvvvv and seq number 21

packet sent from A with message wwwwwwwwwwwwwwwwwww and seq number 22

TOLAYER3: packet being corrupted

packet sent from A with message xxxxxxxxxxxxxxxxxx and seq number 23

EVENT time: 427.362946, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 16

base A moved to 17

packet sent from A with message yyyyyyyyyyyyyyyyyyyy and seq number 24

EVENT time: 432.621735, type: 2, fromlayer3 entity: 1

received packet from A with message rrrrrrrrrrrrrrrrr, sequence number 17

at B, packet with message rrrrrrrrrrrrrrrrrrrrrrrrrr and sequence number 17 sent to layer 5 i.e. application layer ack/nack sent from B with acknum 17

EVENT time: 433.222992, type: 1, fromlayer5 entity: 0 putting packet number 37 into buffer since outside the window size of 8

EVENT time: 440.902924, type: 1, fromlayer5 entity: 0 putting packet number 38 into buffer since outside the window size of 8

EVENT time: 441.333344, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 12 ack/nack sent from B with acknum 18

TOLAYER3: packet being lost

EVENT time: 443.470520, type: 1, fromlayer5 entity: 0 putting packet number 39 into buffer since outside the window size of 8

EVENT time: 445.831055, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 13 ack/nack sent from B with acknum 18

TOLAYER3: packet being corrupted

EVENT time: 448.725677, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 451.416321, type: 1, fromlayer5 entity: 0

putting packet number 40 into buffer since outside the window size of 8

EVENT time: 453.191254, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 15 ack/nack sent from B with acknum 18

TOLAYER3: packet being corrupted

EVENT time: 454.585724, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 16 ack/nack sent from B with acknum 18

EVENT time: 457.597565, type: 2, fromlayer3 entity: 0 corrupt packet detected at A

EVENT time: 457.652069, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 17

ack/nack sent from B with acknum 18
TOLAYER3: packet being corrupted

EVENT time: 460.668732, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 18

EVENT time: 460.928772, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message ttttttttttttttttttttttttttt and seq number 19

TOLAYER3: packet being corrupted

packet sent from A with message uuuuuuuuuuuuuuuuuu and seq number 20

TOLAYER3: packet being lost

packet sent from A with message vvvvvvvvvvvvvvvvvvv and seq number 21

TOLAYER3: packet being corrupted

TOLAYER3: packet being lost

packet sent from A with message xxxxxxxxxxxxxxxxxx and seq number 23

packet sent from A with message yyyyyyyyyyyyyyyyyyyyy and seq number 24

TOLAYER3: packet being lost

packet sent from A with message zzzzzzzzzzzzzzzz and seq number 25

TOLAYER3: packet being lost

packet sent from A with message aaaaaaaaaaaaaaaaaa and seq number 26

EVENT time: 461.932770, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 465.810059, type: 1, fromlayer5 entity: 0

putting packet number 41 into buffer since outside the window size of 8

EVENT time: 467.576691, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 18

ack/nack sent from B with acknum 18

EVENT time: 469.204285, type: 1, fromlayer5 entity: 0

putting packet number 42 into buffer since outside the window size of 8

EVENT time: 473.521759, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 12

ack/nack sent from B with acknum 18

EVENT time: 473.837250, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 18

EVENT time: 476.288208, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 18

EVENT time: 478.442993, type: 1, fromlayer5 entity: 0

putting packet number 43 into buffer since outside the window size of 8

EVENT time: 478.443420, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 13

ack/nack sent from B with acknum 18

EVENT time: 480.928772, type: 0, timerinterrupt entity: 0

timeout happened at A

TOLAYER3: packet being lost

TOLAYER3: packet being lost

EVENT time: 482.506073, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 15 ack/nack sent from B with acknum 18

EVENT time: 483.266724, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 18

EVENT time: 484.663757, type: 1, fromlayer5 entity: 0

putting packet number 44 into buffer since outside the window size of 8

EVENT time: 485.313324, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 18

EVENT time: 486.247101, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 17

ack/nack sent from B with acknum 18
TOLAYER3: packet being lost

EVENT time: 495.544708, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 19, got 18

ack/nack sent from B with acknum 18
TOLAYER3: packet being corrupted

EVENT time: 497.034149, type: 2, fromlayer3 entity: 0

corrupt packet detected at A

EVENT time: 500.928772, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message tttttttttttttttttttttttttt and seq number 19

TOLAYER3: packet being corrupted

packet sent from A with message uuuuuuuuuuuuuuuuuuu and seq number 20

TOLAYER3: packet being lost

packet sent from A with message vvvvvvvvvvvvvvvvvv and seq number 21

TOLAYER3: packet being lost

packet sent from A with message wwwwwwwwwwwwwwwwwww and seq number 22

packet sent from A with message xxxxxxxxxxxxxxxxx and seq number 23

packet sent from A with message yyyyyyyyyyyyyyyyyyyy and seq number 24

packet sent from A with message zzzzzzzzzzzzzzzzz and seq number 25

TOLAYER3: packet being corrupted

packet sent from A with message aaaaaaaaaaaaaaaaaa and seq number 26

EVENT time: 503.423950, type: 2, fromlayer3 entity: 1

received packet from A with message ttttttttttttttttttttttt, sequence number 19

at B, packet with message ttttttttttttttttttttttt and sequence number 19 sent to layer 5 i.e.

application layer

ack/nack sent from B with acknum 19

TOLAYER3: packet being lost

EVENT time: 504.423584, type: 1, fromlayer5 entity: 0

putting packet number 45 into buffer since outside the window size of 8

EVENT time: 504.936188, type: 1, fromlayer5 entity: 0

putting packet number 46 into buffer since outside the window size of 8

EVENT time: 507.774414, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 20, got 12

ack/nack sent from B with acknum 19

EVENT time: 508.782562, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 19

base_A moved to 20

EVENT time: 511.670593, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 20, got 13

ack/nack sent from B with acknum 19

EVENT time: 515.934082, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 19

EVENT time: 520.135559, type: 1, fromlayer5 entity: 0

putting packet number 47 into buffer since outside the window size of 8

EVENT time: 521.600098, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 20, got 14

ack/nack sent from B with acknum 19

EVENT time: 522.699707, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 19

EVENT time: 523.127869, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 20, got 17

ack/nack sent from B with acknum 19 TOLAYER3: packet being lost

EVENT time: 527.856567, type: 2, fromlayer3 entity: 1

corrupt packet detected at B

ack/nack sent from B with acknum 19

EVENT time: 528.782593, type: 0, timerinterrupt entity: 0

timeout happened at A

packet sent from A with message uuuuuuuuuuuuuuuuuu and seq number 20

TOLAYER3: packet being lost

packet sent from A with message vvvvvvvvvvvvvvvvvv and seq number 21

EVENT time: 532.557739, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 20, got 19 ack/nack sent from B with acknum 19

EVENT time: 536.243591, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 19

EVENT time: 538.238342, type: 1, fromlayer5 entity: 0 putting packet number 48 into buffer since outside the window size of 8

EVENT time: 538.250061, type: 2, fromlayer3 entity: 1 received packet from A with message uuuuuuuuuuuuuuuuuuuuu, sequence number 20 at B, packet with message uuuuuuuuuuuuuuuuuuuuuuu and sequence number 20 sent to layer 5 i.e. application layer ack/nack sent from B with acknum 20

EVENT time: 539.053345, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 19

EVENT time: 540.753113, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 21, got 14 ack/nack sent from B with acknum 20

TOLAYER3: packet being corrupted

EVENT time: 542.185425, type: 2, fromlayer3 entity: 1 not received expected packet from A, expected 21, got 15 ack/nack sent from B with acknum 20 TOLAYER3: packet being lost

EVENT time: 543.598389, type: 2, fromlayer3 entity: 0 received acknowledgment from B with acknum 20 base_A moved to 21 packet sent from A with message ccccccccccccccc and seq number 28

EVENT time: 546.473267, type: 2, fromlayer3 entity: 1

not received expected packet from A, expected 21, got 16 ack/nack sent from B with acknum 20

EVENT time: 547.274780, type: 1, fromlayer5 entity: 0

putting packet number 49 into buffer since outside the window size of 8

EVENT time: 552.125732, type: 2, fromlayer3 entity: 1

Simulator terminated at time 552.125732

after sending 50 msgs from layer5

Simulation Results: Protocol: Go-Back-N

50 of packets sent from the Application Layer of Sender A 168 of packets sent from the Transport Layer of Sender A

88 packets received at the Transport layer 21 packets received at the Application layer

Total time: 552.125732 time units

Throughput = 0.038035 packets/time units