Case 1:

Enter CRC Steps:0

Enter piggybacking:0

Enter Generator Polynomial:10011

Enter the number of messages to simulate: 5

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

Enter packet corruption probability [0.0 for no corruption]:0.3

Enter average time between messages from sender's layer5 [ > 0.0]:500

Enter TRACE:2

EVENT time: 46.784874, type: 1, fromlayer5 entity: 1

B receives Packet B0 from layer 3

B sends Frame B0 to A

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 50.875423, type: 2, fromlayer3 entity: 0

corrupted frame from A side

EVENT time: 668.660522, type: 1, fromlayer5 entity: 0

A receives Packet A0 from layer 3

A sends Frame A0 to B

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 18 , Data : bbb

TOLAYER1: packet being lost

EVENT time: 1025.818604, type: 1, fromlayer5 entity: 1

EVENT time: 1046.784912, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

EVENT time: 1055.997437, type: 2, fromlayer3 entity: 0

A receives a data frame from layer1

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

EVENT time: 1059.493652, type: 2, fromlayer3 entity: 1

B receives an acknowledgment frame for frame B 0

EVENT time: 1513.901123, type: 1, fromlayer5 entity: 0

EVENT time: 1668.660522, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 18 , Data : bbb

EVENT time: 1677.423462, type: 2, fromlayer3 entity: 1

B receives a data frame from layer 1

B sends acknowledgment frame to A

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

EVENT time: 1680.909790, type: 2, fromlayer3 entity: 0

A receives an acknowledgment frame for frame A 0

EVENT time: 2151.188721, type: 1, fromlayer5 entity: 0

A receives Packet A1 from layer 3

A sends Frame A1 to B

Type : 0 , Seq : 1 , Ack : -1 , Checksum : 8 , Data : eee

EVENT time: 2155.064941, type: 2, fromlayer3 entity: 1

B receives a data frame from layer 1

B sends acknowledgment frame to A

Type : 1 , Seq : 1 , Ack : 1 , Checksum : 20 , Data :

EVENT time: 2160.626221, type: 2, fromlayer3 entity: 0

A receives an acknowledgment frame for frame A 1

Simulator terminated at time 2160.626221

after sending 5 msgs from layer5

case 2:

Enter CRC Steps:0

Enter piggybacking:1

Enter Generator Polynomial:10011

Enter the number of messages to simulate: 5

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

Enter packet corruption probability [0.0 for no corruption]:0.3

Enter average time between messages from sender's layer5 [ > 0.0]:100

Enter TRACE:2

EVENT time: 9.356975, type: 1, fromlayer5 entity: 1

B receives Packet B0 from layer 3

B sends Frame B0 to A

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 13.447523, type: 2, fromlayer3 entity: 0

corrupted frame from A side

EVENT time: 133.732101, type: 1, fromlayer5 entity: 0

A receives Packet A0 from layer 3

A sends Frame A0 to B

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 18 , Data : bbb

TOLAYER1: packet being lost

EVENT time: 205.163727, type: 1, fromlayer5 entity: 1

EVENT time: 302.780243, type: 1, fromlayer5 entity: 0

EVENT time: 401.373352, type: 1, fromlayer5 entity: 1

EVENT time: 1009.356995, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 1017.596680, type: 2, fromlayer3 entity: 0

corrupted frame from A side

EVENT time: 1133.732056, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 18 , Data : bbb

EVENT time: 1136.617065, type: 2, fromlayer3 entity: 1

B receives a data frame from layer 1

B waits to send ACK to A

EVENT time: 2009.356934, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

EVENT time: 2016.243286, type: 2, fromlayer3 entity: 0

A receives a data frame from layer1

A waits to send acknowledgment to B

EVENT time: 2133.731934, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 18 , Data : bbb

EVENT time: 2138.562500, type: 2, fromlayer3 entity: 1

B receives a data frame from layer 1

Duplicate frame detected in B

B sends acknowledgment frame to A

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

EVENT time: 2142.660400, type: 2, fromlayer3 entity: 0

A receives an acknowledgment frame for frame A 0

EVENT time: 3009.356934, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 3013.354736, type: 2, fromlayer3 entity: 0

corrupted frame from A side

EVENT time: 4009.356934, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

EVENT time: 4018.691895, type: 2, fromlayer3 entity: 0

A receives a data frame from layer1

Duplicate frame detected in A side

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

TOLAYER1: packet being lost

EVENT time: 5009.356934, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

EVENT time: 5010.361816, type: 2, fromlayer3 entity: 0

A receives a data frame from layer1

Duplicate frame detected in A side

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

TOLAYER1: packet being corrupted

EVENT time: 5013.740234, type: 2, fromlayer3 entity: 1

Frame corrupted at B side

EVENT time: 6009.356934, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 12 , Data : aaa

EVENT time: 6010.884277, type: 2, fromlayer3 entity: 0

A receives a data frame from layer1

Duplicate frame detected in A side

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 6 , Data :

EVENT time: 6012.804199, type: 2, fromlayer3 entity: 1

B receives an acknowledgment frame for frame B 0

Simulator terminated at time 6012.804199

after sending 5 msgs from layer5

case 3:

Enter CRC Steps:1

Enter piggybacking:0

Enter Generator Polynomial:10101

Enter the number of messages to simulate: 2

Enter packet loss probability [enter 0.0 for no loss]:0

Enter packet corruption probability [0.0 for no corruption]:0.5

Enter average time between messages from sender's layer5 [ > 0.0]:500

Enter TRACE:2

EVENT time: 46.784874, type: 1, fromlayer5 entity: 1

B receives Packet B0 from layer 3

Input bit string :

01100001011000010110000100000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

B sends Frame B0 to A

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 50.875423, type: 2, fromlayer3 entity: 0

Input bit string :

01011010011000010110000100000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00100

corrupted frame from A side

EVENT time: 668.660522, type: 1, fromlayer5 entity: 0

A receives Packet A0 from layer 3

Input bit string :

01100010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

A sends Frame A0 to B

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : bbb

TOLAYER1: packet being corrupted

EVENT time: 674.749573, type: 2, fromlayer3 entity: 1

Input bit string :

01011010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

11010

Frame corrupted at B side

EVENT time: 1046.784912, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : aaa

EVENT time: 1052.221558, type: 2, fromlayer3 entity: 0

Input bit string :

01100001011000010110000100000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

A receives a data frame from layer1

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 10 , Data :

TOLAYER1: packet being corrupted

EVENT time: 1060.461182, type: 2, fromlayer3 entity: 1

Input bit string :

01011010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

11000

Frame corrupted at B side

EVENT time: 1668.660522, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : bbb

EVENT time: 1671.545532, type: 2, fromlayer3 entity: 1

Input bit string :

01100010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

B receives a data frame from layer 1

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

B sends acknowledgment frame to A

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 10 , Data :

TOLAYER1: packet being corrupted

EVENT time: 1678.431885, type: 2, fromlayer3 entity: 0

Input bit string :

01011010000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

11000

corrupted frame from A side

EVENT time: 2046.784912, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : aaa

TOLAYER1: packet being corrupted

EVENT time: 2054.814209, type: 2, fromlayer3 entity: 0

Input bit string :

01011010011000010110000100000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00100

corrupted frame from A side

EVENT time: 2668.660645, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : bbb

TOLAYER1: packet being corrupted

EVENT time: 2674.221924, type: 2, fromlayer3 entity: 1

Input bit string :

01011010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

11010

Frame corrupted at B side

EVENT time: 3046.784912, type: 0, timerinterrupt entity: 1

...........Frame resent from B side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : aaa

EVENT time: 3052.732422, type: 2, fromlayer3 entity: 0

Input bit string :

01100001011000010110000100000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

A receives a data frame from layer1

Duplicate frame detected in A side

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

A sends acknowledgment frame to B

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 10 , Data :

EVENT time: 3054.930176, type: 2, fromlayer3 entity: 1

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

B receives an acknowledgment frame for frame B 0

EVENT time: 3668.660645, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : bbb

TOLAYER1: packet being corrupted

EVENT time: 3678.308350, type: 2, fromlayer3 entity: 1

Input bit string :

01011010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

11010

Frame corrupted at B side

EVENT time: 4668.660645, type: 0, timerinterrupt entity: 0

...........Frame resent from A side..........

Type : 0 , Seq : 0 , Ack : -1 , Checksum : 6 , Data : bbb

EVENT time: 4676.403320, type: 2, fromlayer3 entity: 1

Input bit string :

01100010011000100110001000000000000000000000000000000000000000001111111111111111111111111111111100000000000000000000000000000000

Generator Polynomial :

10101

Calculated CRC :

00110

B receives a data frame from layer 1

Duplicate frame detected in B

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

B sends acknowledgment frame to A

Type : 1 , Seq : 0 , Ack : 0 , Checksum : 10 , Data :

EVENT time: 4682.890137, type: 2, fromlayer3 entity: 0

Input bit string :

00000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000001

Generator Polynomial :

10101

Calculated CRC :

01010

A receives an acknowledgment frame for frame A 0

Simulator terminated at time 4682.890137

after sending 2 msgs from layer5