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-----  Network Simulator Version   2.3 --------

Enter the number of messages to simulate: Packet loss probability [enter
number between 0.0 and 1.0]: Packet corruption probability [0.0 for no
corruption]: Packet out-of-order probability [0.0 for no out-of-order]:
Average time between messages from sender's layer5 [ > 0.0]: Enter Level
of tracing desired: Do you want actions randomized: (1 = yes, 0 = no)? Do
you want Bidirectional: (1 = yes, 0 = no)? Input parameters:
Number of Messages = 50  Lost Packet Prob. =   0.200
Corrupt Packet Prob. =   0.200  Out Of Order Prob. =   0.200
Ave. time between messages =    10.00  Trace level = 2
Randomize = 1  Bi-directional = 0


A:       3.3924,  Layer 5 to 4  Message = !fEVhy->Pbs'2J3m~2DU
B:      14.0888,  Layer 4 to 5  Message = !fEVhy->Pbs'2J3m~2DU
A:      19.2953,  Layer 5 to 4  Message = ##i.Qt9]!Eh-Ps8[~Dg,
A:      27.0215,  Layer 5 to 4  Message = $X$d:oFzQ(]3h>sJ~U,a
B:      30.5760,  Layer 4 to 5  Message = ##i.Qt9]!Eh-Ps8[~Dg,
A:      42.4154,  Layer 5 to 4  Message = %kS%$jR:#iQ9!hP8~gO7
B:      55.9182,  Layer 4 to 5  Message = $X$d:oFzQ(]3h>sJ~U,a
A:      61.7697,  Layer 5 to 4  Message = &}wq&e_XRLF?93-'~xrl
A:      73.0398,  Layer 5 to 4  Message = '2=IT'kv$x:FQ]hs~,7C
B:      73.1601,  Layer 4 to 5  Message = %kS%$jR:#iQ9!hP8~gO7
A:      75.8877,  Layer 5 to 4  Message = (Eb~=Z(6SpxLi(Eb~=Zw
A:      78.1163,  Layer 5 to 4  Message = dW(V'U&)%S$R2Q!P~O}N
A:      86.2006,  Layer 5 to 4  Message = *jL.nP2r*6vX:z]>~aC%
A:      96.8884,  Layer 5 to 4  Message = +fpdWK>2&+k_RF3-~rfY
A:     116.5194,  Layer 5 to 4  Message = ,16;AFKPUZ,ejoty~&+0
A:     125.0021,  Layer 5 to 4  Message = -DZq*AWn'=T-$:Qh~7Ne
A:     137.0576,  Layer 5 to 4  Message = .V~Iq;d.V~Iq.d.V~Iq;
A:     155.4034,  Layer 5 to 4  Message = xiE~Z6pL(b=wSxiE~Z6p
A:     172.8358,  Layer 5 to 4  Message = d{iVD1|jWE2}2X03~lYG
A:     179.3586,  Layer 5 to 4  Message = 10x.-,+*)('&%$#1~}|{
A:     188.5791,  Layer 5 to 4  Message = 2CSdt'7HXiy,<M^n21BR
A:     196.2473,  Layer 5 to 4  Message = 3Uw;^!Df*Ln2Tv:]~3e)
A:     215.9423,  Layer 5 to 4  Message = 4f=qGzP&Yxc8lB3K~T4^
B:     220.0761,  Layer 4 to 5  Message = &}wq&e_XRLF?93-'~xrl
A:     223.5921,  Layer 5 to 4  Message = 5zbI0u]D+pW>&kR9~fM5
A:     233.9837,  Layer 5 to 4  Message = 6x(~wpibZSLE=6x(~wpi
A:     245.4452,  Layer 5 to 4  Message = d7LVaku!,6AK2`jt~+5?
A:     258.1630,  Layer 5 to 4  Message = 8T8.Jf$?[w5Qm+Gc~<Xt
A:     266.7336,  Layer 5 to 4  Message = 9g693a0^-Z*W'T$Q~N{K
A:     274.0597,  Layer 5 to 4  Message = :yZ;:[<{]=|^>}_?~`A!
A:     287.6467,  Layer 5 to 4  Message = ;.~qd;I;.~qdVI;.~qdV
A:     303.6335,  Layer 5 to 4  Message = <AEIMQ<Y^bfjnrvz~%)-
A:     312.5417,  Layer 5 to 4  Message = =fi~6Lb=xEZp(=3i~6Lb
A:     332.3989,  Layer 5 to 4  Message = dfxV}Gn7>(Ov2g0W~Ho8
A:     332.7760,  Layer 5 to 4  Message = ?xS.gBzU0?D|W2kF~Y4m
A:     350.9209,  Layer 5 to 4  Message = A-wdP<)s`LA%o[H4~kWD
A:     352.5444,  Layer 5 to 4  Message = B?=;97531x-B)'%#~|zx
A:     358.9127,  Layer 5 to 4  Message = CRbq#2BQap!1CP`o~0?O
A:     369.6833,  Layer 5 to 4  Message = De(Ij-No2St7XD<^~Bc&
A:     370.5908,  Layer 5 to 4  Message = EwL~S(Zxb6i=pEEL~S(Z
A:     383.0323,  Layer 5 to 4  Message = d,pV<#gM3w^D2nTF~eK1
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A:      402.0143,   Layer 5 to 4   Message = Gf6.&{skcZRJB93)Gvnf
A:      413.1080,   Layer 5 to 4   Message = HQZdmv!+4=GPYclu~H3<
A:      413.7901,   Layer 5 to 4   Message = Id~;Vq.Id~;Vq.Id~;Iq
A:      418.6449,   Layer 5 to 4   Message = JvEq?l:g5b0]+W&R~MyJ
A:      432.3568,   Layer 5 to 4   Message = K+iI)gG'eE%cC#aA~_>|
A:      448.4366,   Layer 5 to 4   Message = LLx~pbSE6(wiZL=x~pbS
A:      450.3697,   Layer 5 to 4   Message = dPMVY]`cfilo2ux{~$'*
A:      460.0816,   Layer 5 to 4   Message = NcwNCWl#7Lau,AUj~5J_
A:      478.8011,   Layer 5 to 4   Message = Ou=dORxAgxU{Dj2X~Gm5
A:      492.7361,   Layer 5 to 4   Message = Pfb;sP'_8pJ$[53G~X2j
A:      498.7318,   Layer 5 to 4   Message = Q<(q]HQ|hS>*s_J5~jUA
B:      502.6677,   Layer 4 to 5   Message = '2=IT'kv$x:FQ]hs~,7C
A:      507.3683,   Layer 5 to 4   Message = ROLIFC?R9630-*'$~{xu
B:      508.2835,   Layer 4 to 5   Message = (Eb~=Z(6SpxLi(Eb~=Zw
A:      510.2015,   Layer 5 to 4   Message = Sbp~x=LZSw(6ESbp~x=L
A:      515.3665,   Layer 5 to 4   Message = dt6Vv8Xx:Tz<2|>_~Aa#
A:      522.8294,   Layer 5 to 4   Message = U)Z.`3e8j=UCtHyM~R&W
A:      531.1392,   Layer 5 to 4   Message = V;~dI.qV;~dV.qV;~dI.
A:      543.1799,   Layer 5 to 4   Message = WNE;2)}tkbXOW<3*~ulc
A:      550.4242,   Layer 5 to 4   Message = Xaiqy$,4<EMU^Xnv~)19
A:      566.2643,   Layer 5 to 4   Message = YfxIc|8Rl(B[u1Ye~:Tn
B:      686.7646,   Layer 4 to 5   Message = dW(V'U&)%S$R2Q!P~O}N
B:      712.2061,   Layer 4 to 5   Message = *jL.nP2r*6vX:z]>~aC%
B:      853.2127,   Layer 4 to 5   Message = +fpdWK>2&+k_RF3-~rfY
B:      869.4669,   Layer 4 to 5   Message = ,16;AFKPUZ,ejoty~&+0
B:     1001.2651,   Layer 4 to 5   Message = -DZq*AWn'=T-$:Qh~7Ne
B:     1007.9078,   Layer 4 to 5   Message = .V~Iq;d.V~Iq.d.V~Iq;
B:     1036.9055,   Layer 4 to 5   Message = xiE~Z6pL(b=wSxiE~Z6p
B:     1056.2200,   Layer 4 to 5   Message = d{iVD1|jWE2}2X03~lYG
```

Printing the contents of the Simulation Event Q
Event Time = 1083.190 B: LAYER 3 Seq/Ack/Check = 19/12/254:
4f=qGzP&Yxc8lB3K~T4^
Event Time = 1099.526 B: LAYER 3 Seq/Ack/Check = 20/13/253:
5zbI0u]D+pW>&kR9~fM5
Event Time = 1104.281 B: LAYER 3 Seq/Ack/Check = 21/15/50:
6x(~wpibZSLE=6x(~wpi
Event Time = 1130.990 B: LAYER 3 Seq/Ack/Check = 22/15/163:
d7LVaku!,6AK2`jt~+5?
Event Time = 1141.631 A: Timer

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B:     1078.1439,   Layer 4 to 5   Message = 10x.-,+*)('&%$#1~}|{
B:     1226.3768,   Layer 4 to 5   Message = 2CSdt'7HXiy,<M^n21BR
B:     1255.7997,   Layer 4 to 5   Message = 3Uw;^!Df*Ln2Tv:]~3e)
B:     1383.7223,   Layer 4 to 5   Message = 4f=qGzP&Yxc8lB3K~T4^
B:     1659.5924,   Layer 4 to 5   Message = 5zbI0u]D+pW>&kR9~fM5
B:     1773.8667,   Layer 4 to 5   Message = 6x(~wpibZSLE=6x(~wpi
B:     1936.2392,   Layer 4 to 5   Message = d7LVaku!,6AK2`jt~+5?
B:     1959.6328,   Layer 4 to 5   Message = 8T8.Jf$?[w5Qm+Gc~<Xt
B:     2316.0291,   Layer 4 to 5   Message = 9g693a0^-Z*W'T$Q~N{K
B:     2321.3164,   Layer 4 to 5   Message = :yZ;:[<{]=|^>}_?~`A!
B:     2685.2951,   Layer 4 to 5   Message = ;.~qd;I;.~qdVI;.~qdV
B:     2707.3780,   Layer 4 to 5   Message = <AEIMQ<Y^bfjnrvz~%)-
B:     2954.8138,   Layer 4 to 5   Message = =fi~6Lb=xEZp(=3i~6Lb
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B:    2983.2438,  Layer 4 to 5  Message = dfxV}Gn7>(Ov2g0W~Ho8
B:    3314.9032,  Layer 4 to 5  Message = ?xS.gBzU0?D|W2kF~Y4m
B:    3343.4005,  Layer 4 to 5  Message = A-wdP<)s`LA%o[H4~kWD
```

Printing the contents of the Simulation Event Q
Event Time = 3349.907 A: LAYER 3 Seq/Ack/Check = 0/32/2:

Event Time = 3361.360 B: LAYER 3 Seq/Ack/Check = 34/28/214: De(Ij-
No2St7XD<^~Bc&
Event Time = 3368.140 B: LAYER 3 Seq/Ack/Check = 36/29/16:
b~pV<#gM3w^D3nTF,eK1
Event Time = 3387.302 B: LAYER 3 Seq/Ack/Check = 905969701/30/21:
Gf .&{skcZRJB93)Gvnf
Event Time = 3397.839 B: LAYER 3 Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3423.069 A: Timer

Printing the contents of the Simulation Event Q
Event Time = 3361.360 B: LAYER 3 Seq/Ack/Check = 34/28/214: De(Ij-
No2St7XD<^~Bc&
Event Time = 3368.140 B: LAYER 3 Seq/Ack/Check = 36/29/16:
b~pV<#gM3w^D3nTF,eK1
Event Time = 3387.302 B: LAYER 3 Seq/Ack/Check = 905969701/30/21:
Gf .&{skcZRJB93)Gvnf
Event Time = 3397.839 B: LAYER 3 Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3423.069 A: Timer

Printing the contents of the Simulation Event Q
Event Time = 3368.140 B: LAYER 3 Seq/Ack/Check = 36/29/16:
b~pV<#gM3w^D3nTF,eK1
Event Time = 3387.302 B: LAYER 3 Seq/Ack/Check = 905969701/30/21:
Gf .&{skcZRJB93)Gvnf
Event Time = 3397.839 B: LAYER 3 Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3412.593 B: LAYER 3 Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer

Printing the contents of the Simulation Event Q
Event Time = 3368.140 B: LAYER 3 Seq/Ack/Check = 36/29/16:
b~pV<#gM3w^D3nTF,eK1
Event Time = 3387.302 B: LAYER 3 Seq/Ack/Check = 905969701/30/21:
Gf .&{skcZRJB93)Gvnf
Event Time = 3397.839 B: LAYER 3 Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3412.593 B: LAYER 3 Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer
```

```
Printing the contents of the Simulation Event Q
Event Time = 3387.302 B: LAYER 3  Seq/Ack/Check = 905969701/30/21:
Gf .&{skcZRJB93)Gvnf
Event Time = 3397.839 B: LAYER 3  Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3412.593 B: LAYER 3  Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3397.839 B: LAYER 3  Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3412.593 B: LAYER 3  Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3397.839 B: LAYER 3  Seq/Ack/Check = 38/31/245:
HQZdmv!+4=GPYclu~H3<
Event Time = 3412.593 B: LAYER 3  Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3412.593 B: LAYER 3  Seq/Ack/Check = 39/32/59:
Id~;Vq.Id~;Vq.Id~;Iq
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3449.907 A: Timer


Printing the contents of the Simulation Event Q


Printing the contents of the Simulation Event Q
Event Time = 3461.872 B: LAYER 3  Seq/Ack/Check = 32/25/41:  B?=;97531x-
B)'%#~|zx
Event Time = 3473.579 B: LAYER 3  Seq/Ack/Check = 4325409/26/189:
CRbq#2 Qap!1CP`o~0?O
Event Time = 3475.194 B: LAYER 3  Seq/Ack/Check = 34/28/214:  De(Ij-
No2St7XD<^~Bc&
Event Time = 3485.281 B: LAYER 3  Seq/Ack/Check = 36/29/16:
d,pV<#gM3w^D2nTF~eK1
Event Time = 3510.733 B: LAYER 3  Seq/Ack/Check = 37/30/21:
Gf6.&{skcZRJB93)Gvnf
```

```
Event Time = 3549.907 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 3473.579 B: LAYER 3  Seq/Ack/Check = 4325409/26/189:
CRbq#2 Qap!1CP`o~0?O
Event Time = 3475.194 B: LAYER 3  Seq/Ack/Check = 34/28/214:  De(Ij-
No2St7XD<^~Bc&
Event Time = 3485.281 B: LAYER 3  Seq/Ack/Check = 36/29/16:
d,pV<#gM3w^D2nTF~eK1
Event Time = 3510.733 B: LAYER 3  Seq/Ack/Check = 37/30/21:
Gf6.&{skcZRJB93)Gvnf
Event Time = 3549.907 A: Timer

B:    3461.8722,  Layer 4 to 5  Message = B?=;97531x-B)'%#~|zx
B:    3595.5449,  Layer 4 to 5  Message = CRbq#2BQap!1CP`o~0?O
B:    3712.3880,  Layer 4 to 5  Message = De(Ij-No2St7XD<^~Bc&
B:    3713.5227,  Layer 4 to 5  Message = EwL~S(Zxb6i=pEEL~S(Z
B:    3744.0244,  Layer 4 to 5  Message = d,pV<#gM3w^D2nTF~eK1
B:    4010.5983,  Layer 4 to 5  Message = Gf6.&{skcZRJB93)Gvnf
B:    4129.8961,  Layer 4 to 5  Message = HQZdmv!+4=GPYclu~H3<
B:    4147.0533,  Layer 4 to 5  Message = Id~;Vq.Id~;Vq.Id~;Iq
B:    4305.9992,  Layer 4 to 5  Message = JvEq?l:g5b0]+W&R~MyJ
B:    4318.7063,  Layer 4 to 5  Message = K+iI)gG'eE%cC#aA~_>|
B:    4320.2126,  Layer 4 to 5  Message = LLx~pbSE6(wiZL=x~pbS
B:    4321.8400,  Layer 4 to 5  Message = dPMVY]`cfilo2ux{~$'*
B:    4483.9068,  Layer 4 to 5  Message = NcwNCWl#7Lau,AUj~5J_
B:    4666.3812,  Layer 4 to 5  Message = Ou=dORxAgxU{Dj2X~Gm5
B:    4676.5220,  Layer 4 to 5  Message = Pfb;sP'_8pJ$[53G~X2j
B:    5012.7083,  Layer 4 to 5  Message = Q<(q]HQ|hS>*s_J5~jUA

Printing the contents of the Simulation Event Q
Event Time = 5023.844 B: LAYER 3  Seq/Ack/Check = 51/44/39:
U)Z.`3e8j=UCtHyM~R&W
Event Time = 5036.475 A: LAYER 3  Seq/Ack/Check = 0/47/242:

Event Time = 5042.007 B: LAYER 3  Seq/Ack/Check = 48/41/84:
ROLIFC?R9630-*'$~{xu
Event Time = 5057.659 B: LAYER 3  Seq/Ack/Check = 49/42/109:
Sbp~x=LZSw(6ESbp~x=L
Event Time = 5060.480 B: LAYER 3  Seq/Ack/Check = 50/44/164:
dt6Vv8Xx:Tz<2|>_~Aa#
Event Time = 5087.235 B: LAYER 3  Seq/Ack/Check = 52/45/76:
V;~dI.qV;~dV.qV;~dI.
Event Time = 5092.953 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 5036.475 A: LAYER 3  Seq/Ack/Check = 0/47/242:

Event Time = 5042.007 B: LAYER 3  Seq/Ack/Check = 48/41/84:
ROLIFC?R9630-*'$~{xu
Event Time = 5057.659 B: LAYER 3  Seq/Ack/Check = 49/42/109:
Sbp~x=LZSw(6ESbp~x=L
```

```
Event Time = 5060.480 B: LAYER 3  Seq/Ack/Check = 50/44/164:
dt6Vv8Xx:Tz<2|>_~Aa#
Event Time = 5087.235 B: LAYER 3  Seq/Ack/Check = 52/45/76:
V;~dI.qV;~dV.qV;~dI.
Event Time = 5115.983 B: LAYER 3  Seq/Ack/Check = 55/48/142:
YfxIc|8Rl(B[u1Ye~:Tn
Event Time = 5120.380 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 5039.862 A: LAYER 3  Seq/Ack/Check = 48/0/3:

Event Time = 5042.007 B: LAYER 3  Seq/Ack/Check = 48/41/84:
ROLIFC?R9630-*'$~{xu
Event Time = 5057.659 B: LAYER 3  Seq/Ack/Check = 49/42/109:
Sbp~x=LZSw(6ESbp~x=L
Event Time = 5060.480 B: LAYER 3  Seq/Ack/Check = 50/44/164:
dt6Vv8Xx:Tz<2|>_~Aa#
Event Time = 5087.235 B: LAYER 3  Seq/Ack/Check = 52/45/76:
V;~dI.qV;~dV.qV;~dI.
Event Time = 5115.983 B: LAYER 3  Seq/Ack/Check = 55/48/142:
YfxIc|8Rl(B[u1Ye~:Tn
Event Time = 5120.380 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 5042.007 B: LAYER 3  Seq/Ack/Check = 48/41/84:
ROLIFC?R9630-*'$~{xu
Event Time = 5057.659 B: LAYER 3  Seq/Ack/Check = 49/42/109:
Sbp~x=LZSw(6ESbp~x=L
Event Time = 5060.480 B: LAYER 3  Seq/Ack/Check = 50/44/164:
dt6Vv8Xx:Tz<2|>_~Aa#
Event Time = 5087.235 B: LAYER 3  Seq/Ack/Check = 52/45/76:
V;~dI.qV;~dV.qV;~dI.
Event Time = 5115.983 B: LAYER 3  Seq/Ack/Check = 55/48/142:
YfxIc|8Rl(B[u1Ye~:Tn
Event Time = 5120.380 A: Timer


Printing the contents of the Simulation Event Q
Event Time = 5057.659 B: LAYER 3  Seq/Ack/Check = 49/42/109:
Sbp~x=LZSw(6ESbp~x=L
Event Time = 5060.480 B: LAYER 3  Seq/Ack/Check = 50/44/164:
dt6Vv8Xx:Tz<2|>_~Aa#
Event Time = 5087.235 B: LAYER 3  Seq/Ack/Check = 52/45/76:
V;~dI.qV;~dV.qV;~dI.
Event Time = 5115.983 B: LAYER 3  Seq/Ack/Check = 55/48/142:
YfxIc|8Rl(B[u1Ye~:Tn
Event Time = 5120.380 A: Timer

B:    5042.0068,  Layer 4 to 5  Message = ROLIFC?R9630-*'$~{xu
B:    5057.6588,  Layer 4 to 5  Message = Sbp~x=LZSw(6ESbp~x=L
B:    5060.4803,  Layer 4 to 5  Message = dt6Vv8Xx:Tz<2|>_~Aa#
```

```
Simulator terminated at time 5069.843820
 after receiving 50 msgs at layer5
Simulator Analysis:
  Number of messages sent from 5 to 4: 54
  Number of messages received at Layer 5, side A: 0
  Number of messages received at Layer 5, side B: 50
  Number of messages incorrectly received at layer 5: 0
  Number of packets entering the network: 619
  Average number of packets already in network:      2.158
  Number of packets that the network lost: 124
  Number of packets that the network corrupted: 96
  Number of packets that the network put out of order: 105
```