HW3

GB2

i. S

{0,1} {2,2}   {1,2}   Timeout of f1   Resend/resnit   {3,4}
f0f1   f2   f1 f2   f3

R
{0} A1   A1   discard   A2 A3   A1 4
f0   {1}   f2   {2} {3} {4}
                                            f1 f2   f3

ii.

{0,1} {1,2}   {3, nothing}   nothing more to send
f0f1   f2   f1   f3
S

R
ACK1   NAK1   ACK3   ACK4
{1,2} buffer f2
f0   f1 f2 {3,4}   f3

iii.

{0,1,2} {1,2,3}   f1 Timeout Resend frame {4,5,6}   Nothing more to send
f0f1f2   f3   f1 f2 f3
S

R
{0} A1 A1   A1   A1 A2 A3
{1} discard discard   {3}
f0 f2 f3   f1 f2 f3

$\{0,1,2\}$ $\{1,2,3\}$ $\{4,5,6\}$

f_0, f_1, f_2 f_3, f_1 f_1 Nothing
                                                none to send

S

R

A_1 N_1 N_1 $A4$ $A4$
                  buffer   Discard
$\{0,1,2\}$ $\{1,2,3\}$ f_1 No more data
  f_0 buffer f_3 $\{4,5,6\}$ but in   to send, only sends A_3
         f_2 f_1, f_2, f_3 window

$\{0,1,2\}$ $\{0,1,2\}$ $\{3,4,5\}$
f_0, f_1, f_2 No new data f_0, f_1, f_3
              to send, waits

S

R

$\{03\}$ $A0$
           Discard $A_1 A_2 A_3$ $A4$
           f_2 $\{23\}$
                                           $\{23\}$
                                              $\{33\}$ $\{43\}$
                                          $f_0 f_1 f_2$ f_3

$\{0,1,2\}$ $\{1,2,3\}$ $\{4,5,6\}$
f_0, f_1, f_2 f_0 f_3 f_1 f_4 $\{5,6,7\}$

S

R

Nak 0 $A1$ $N7$ $A4$ $A5$
$\{0,1,2\}$ buffer $\{1,2,3\}$ buffer $\{4,5,6\}$ $\{5,6,7\}$
  f_2 f_0 f_3 f_1, f_2, f_3 f_4