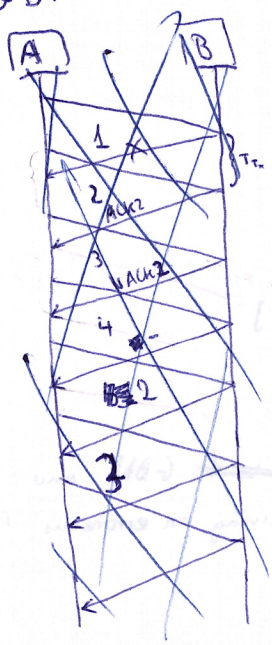
...4.1.1.

GBN




$W_s \geq 2\frac{T_{prop}}{T_{Tx}} + 1$ ; $T_{Tx} = \frac{S_p}{C} = \frac{1024\,b}{2400\,\frac{b}{s}} = 0.4267\,s$

$W_s \geq 2\frac{10\,ms}{426.7\,ms} + 1 = 1.046$

$\eta_{GBN} = \frac{1 - P_e}{1 + (W_s - 1)P_e} = \frac{1 - 0.097}{1 + (1.046 - 1)\cdot 0.097} = 0.8985 = 89.85\% = \eta_{GBN}$

$R_{GBN} = C \cdot \eta_{GBN} = 2400 \cdot 0.8985 = 2156.5\ bps = 2.156\ kbps = R_{GBN}$

Selective Repeat

$\eta_{SR} = \left(1 - \frac{S_H}{S_p}\right) \cdot (1 - P_e) = 1 - 0.097... = 0.9026 = 90.26\% = \eta_{SR}$

($S_H \to 0$)

$R_{SR} = C \cdot \eta_{SR} = 2400 \cdot 0.9026 = 2166.39\ bps = 2.166\ kbps = R_{SR}$