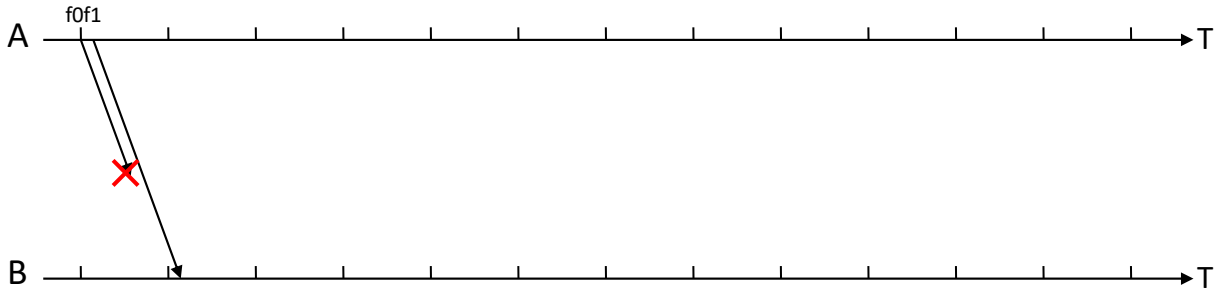
Cpr E 489 Spring 2020
Homework #3
Due Date: 2/25/2020 (Tue) by 11:00 AM
Type your answers and submit on Canvas

Suppose station A tries to send **three** frames (f0, f1, f2) to station B (*there are no more frames to send after f2*). Suppose f0 is lost on the first attempt, while all other frame transmissions (including re-transmitted data frames and ACK/NAK frames) succeed. Suppose that one-way propagation delay is **one** time unit, and timeout for each frame is **seven** time units. For each of the following ARQ protocols, complete a diagram to show the frame exchange sequence and send/receive window information, until all **three** frames are delivered successfully. An example diagram (to be completed) for Question (1) is shown below.

1) (20 points) Go-Back-N (GBN) ARQ protocol with N = 2;



2) (20 points) Go-Back-N (GBN) ARQ protocol with N = 3;
3) (20 points) Stop and Wait (S&W) ARQ protocol;
4) (20 points) Selective Repeat (SR) ARQ protocol with $W_s = W_r = 2$;
5) (20 points) A special version of Selective Repeat (SR) ARQ protocol with send window of size $W_s = 2$ and receive window of size $W_r = 1$.