p6 (contd)

(f) $d_{prop} < d_{trans}$, when $t = d_{trans}$

the first bit of the packet would be at host B, waiting for the total bits to arrive so that the packet can be processed.

(g) $S = 2.5 \times 10^8$ $L = 120$ bits $R = 56$ kbps

$$d_{prop} = \frac{m}{S}, \quad d_{trans} = \frac{L}{R}$$

$$\frac{m}{2.5 \times 10^8} = \frac{120}{56 \times 10^3} \Rightarrow m \approx 535.7 \text{ (km)}$$

P8. (a) $\frac{3M}{150k} = 20$ users can be supported.

∴ CFDM - frequency division multiplexing can help 20 users use the Network simultaneously)

(b) 0.1 ⇒ a user use 10% of time transmitting

ie, at a moment, the probability of a user transmitting via network is also 10%