

(10)

⇒ The duration of 1 bit for connection 100 kbps as:

$$= \frac{1 \text{ bit}}{100 \text{ kbps}}$$

$$= \frac{1}{100}$$

$$= \boxed{0.00001 \text{ s}}$$

⇒ The duration of 1 bit for connection 1 Mbps as:

$$= \frac{1 \text{ bit}}{1 \text{ Mbps}}$$

$$= \frac{1}{1 \times 10^6 \text{ bps}}$$

$$= \frac{1}{10^6 \text{ bps}} = 10^{-6} \text{ s}$$

$$= \boxed{1 \mu\text{s}}$$