

SOLUTION QUIZ-01 BSE-6A

QUESTION-01

- 1) A
- 2) A
- 3) B

TRUE/FALSE

- i. False
- ii. True

QUESTION-02

Link 1 transmission delay = $L/R = 16000 \text{ bits} / 1000 \text{ Mbps} = 0.016000 \text{ msec}$.

Link 1 propagation delay = $d/s = 3 \text{ Km} / 3 \times 10^8 \text{ m/sec} = 0.010000 \text{ msec}$.

Link 2 transmission delay = $L/R = 16000 \text{ bits} / 100 \text{ Mbps} = 0.160000 \text{ msec}$.

Link 2 propagation delay = $d/s = 500 \text{ Km} / 3 \times 10^8 \text{ m/sec} = 1.666667 \text{ msec}$.

Link 3 transmission delay = $L/R = 16000 \text{ bits} / 10 \text{ Mbps} = 1.600000 \text{ msec}$.

Link 3 propagation delay = $d/s = 2 \text{ Km} / 3 \times 10^8 \text{ m/sec} = 0.006667 \text{ msec}$.

Thus, the total end-to-end delay is the sum of these six delays: 3.459333 msec.

Throughput is 10Mbps. (Throughput is the minimum of all the transmission rates that occur along the path from client to server).