Practice 5

**1.**

1001) 101010100000(10010111

1001

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11

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110

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1101

1001

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1000

0000

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10000

1001

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1110

1001

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1010

1001

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001 = Remainder

**2**.

R=Transmission rate

dpoll=Polling delay

Q=Transmit polling round

N=Nodes

Polling and transmitting time last N (Q/R + d) seconds as each station transmits up to the limit of Q bits. NQ bits are distributed during this loop, so the optimum throughput is: Total amount of bits delivered / total time needed

Maximum throughput is N (Q/ R + dpoll)

= NQ/ N (Q/ R + dpoll)

= R/ (1 + dpoll R/Q)

Hence the maximum throughput = R/ (1 + dpoll R/Q)

**3. 1**.

Propagation delay = 225 bits

1 sec 🡪 bits {1 Mbps}

1 bit 🡪 secs

225 bits 🡪

Propagation delay = 22.5

**3.2**

B should start transmit when data reaches safely.

So, TT + PT

=

= 51.2 + 22.5

= 73.7

B should start sending the packet after 73.7

Note: TT = Datasize / Bandwidth.