17

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Ans to the que NO: 1

(a) ID: 1710102l

$x = 1+1 = 2$

$y = 2+1 = 3$

for mesh topology:

Cable link: $n(n-1)/2$

$\Rightarrow 2(2-1)/2$

$= 2/2$

$= 1$

Port: ~~$n(n-1) = (2-1) = 1$~~

Port: $(n-1) = (2-1) = 1$

Star topology has a point-to-point link only so cable link will

6

be 3 ~~comme~~ connected with a hub.

If I were to choose between mesh and star topology (to) more secure network. I will choose ~~star~~ star topology. Because mesh topology has Difficultion in installation, Difficultion in reconfigaration it is ~~high~~ costly and also need a big space. Other side star topology is less expensive, network security

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also increases, if a node is attacked, the rest of the network still remains intact.

(b) half-duplex:

Advantage: Sender can send data and also can receive the data.

disadvantage: this data flow is one time each, thats means senden can send data at a time or receive a data.

full-duplex:

Advantage: Sender can send and receive the data at the same time.

4

disadvantage: No proper bandwidth utilization as the same ~~time~~ line is used for sending and receiving data at the same time.

Ans to the que no: 4

(a) ID: 1210121

$x = 1+1 = 2$

$y = 2+1 = 3$

SNR for this chanel is $(10 \times 3) = 30$

we have a chanel with 2 MHz bandwidth and SNR ratio is 30.

4

Bit rate = 2×30

= 60

(b) Throughput is an actal measure of how much data is succesfully transfereed from source to destination, and bandwidth is a theoritical measure of how much data could be transferred from source to destination. Throughput measures speed while bandwith is only

3

indirectly related to speed. So thats why throughput can be greater than bandwith.