Informal Quiz 1

❏ ❏ The reason why a computer database is better than a notebook containing the same information is because the computer allows me to search, index, organize and access the information easily. A network would add no value here.

❏ ❏ In terms of virtualization, the network can be thought of as a large switch connecting users instead of ports.

❏ ❏ If peak rate = 5 Mbps, Avg rate = 1 Mbps and Service rate = 2 Mbps, multiplexing gain = 2.

❏ ❏ A hotel which is leasing a T-1 line (which can carry 24 calls at a time) to provide service for 200 customers is exploiting temporal multiplexing.

❏ ❏ If a task can be divided into N independent, equally sized subtasks, I need to use pipelining in order to parallelize it.

❏ ❏ Batching of bits into packets of at least a minimum size is the right way to packetize real-time data.

❏ ❏ A 700 MHz processor will execute my program twice as fast as a 350 MHz processor.

❏ ❏ When uncertainty or randomness increases, information increases.

❏ ❏ A finite amount of bandwidth can be used to create an unbounded bit rate

❏ ❏ Baud rate refers to the number of bits per second transmitted on the channel.

❏ ❏ Manchester encoding has a transition in the middle of the interval which prevents the receiver clock from drifting.

❏ ❏ Every 125 microseconds, a T-1 line can carry a 8-bit sample each from 24 phone calls.

❏ ❏ If my Vin/Vout is 1000, then the attenuation is 30 dB

❏ ❏ Baseband coaxial cable uses analog signaling

❏ ❏ Dispersion in single mode fiber is significantly larger than that in multimode fiber

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Informal Quiz 1: Solutions

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