Informal Quiz 1

True or False?

T  F

☐ ☐ The structure of MAC addresses facilitates performance scalability.

☐ ☐ The interface between layers often outlives the technology used in each layer.

☐ ☐ If a node is multi-homed, it must be configured as a router.

☐ ☐ Heterogeneity and scale is the reason why routers are required for internetworking.

☐ ☐ A layer-2 switch connects two broadcast domains.

☐ ☐ ARP and RARP run over IP.

☐ ☐ The protocol field in the PPP header is used for demultiplexing.
The CRC field in Ethernet is found in the trailer because there was no space in the header.

Meta-data about voice samples in telephony is in a large part inferred from timing.

Statistical multiplexing is most useful when the peak rate is close to the average rate.

The heterogeneity issue is addressed in IP by defining a common packet format, a common address space, and mapping them to lower layers using fragmentation/reassembly and address resolution techniques.

Performance scalability is achieved in routers by providing better filtering (cutting out the fall-back on broadcast) and higher-level forwarding.

Telephony and ATM networks can afford to have variable length addresses because their performance cost is amortized over the life of the session.
Informal Quiz 1: Solutions

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