International College, KMITL Computer Network and Communication Dr. Isara Anantavrasilp Exercise 1, Date: August 22, 2012

Network Edge

1. What are end user, end device and network edge?

End user: User who uses network applications *End device*: Also called end system. It is a component that resides at the end of a network *Network edge*: A group of end systems at the end of the network

2. List five access link technologies.

Network Core

3. What are the differences between circuit switching and packet switching schemes?

In circuit switching the network reserves network resources a long the path from one host to another during the communication. In packet switching, the resources are not reserved and each data packet is transferred individually.

4. What are TDM and FDM? Explain each technique in details. What is the different between them?

TDM shares a communication link based on time whereas FDM shares the link based on frequency. In TDM, the link is divided into time slots and each connection is assigned to a slot. Only one connection can use the link at any point of time. In FDM, the connections are assigned to different frequency range.

Network Protocols

5. List five layers in the TCP/IP reference model and give a description of each layer.

See slides

6. In which layer does an iPhone process? Which layer does a router process?

The iPhone processes in all layers. Do you know why? Router processes in layer 3.