

## WAN Tech

### Questions

1. A T1 line employs what type of multiplexing?
  - **Time Division**
2. When entering a building, what type of media does a T1 line most likely use?
  - **Twisted Pair Cooper**
3. With what type of media would a T3 likely use when it enters a building??
  - **The lesson says Coax but in today's world it is more likely fiber.**

### Satellite, ISDN, Cable, DSK, and Dialup Questions

1. How does the cost of non-terrestrial communications compare with conventional terrestrial networking?
  - **It is more expensive**
2. Other than cost, what is the significant disadvantage of satellite communications?
  - **Latency, Affected by weather**
3. What does the A in "ADSL" represent?
  - **Asymmetric-Different upload and download speeds**
4. What type of media would an ADSL use when it enters a building?
  - **Cooper**
5. What type of DSL is capable of speeds of up to 100Mbit/s?
  - **VDSL-Very High Bitrate DSL**

### Circuit Switching and Packet Switching

### Questions

1. Which technology, circuit or packet switching, is most like the technology utilized by POTS?
  - **Circuit**
2. What is the major criticism of circuit switching?
  - **Circuit switching is dedicated and cannot be used by others when not in use.**
3. Why is packet switching considered more efficient than circuit switching?
  - **It is shared media and multiple parties can use the bandwidth. You can actually pay for the bandwidth you use**

### Transmission Media, Speed, and Distance Questions

1. What are the three major WAN cable types?
  - **Coax, Twisted pair and Fiber**
2. When was coax cable patented?

- **1880**
- 3. What type of cable is typically used in a local area network?
  - **Twisted Pair**
- 4. What purpose does the twist in TWP copper cable serve?
  - **It cancels electromagnetic interference**
- 5. What type of cabling would you use for very long distance and very high speed runs?
  - **Fiber**
- 6. When you use Fiber optic cables, what are two conventional cabling operations that require extra care?
  - **Splicing and adding connectors. Also need to watch the bend radius**