***Networking Fundamentals***

**Tutorial 7**

1) State 2 major characteristics about WANs that does not apply to LANs

2) What is the main task of a WAN?

3) At what OSI levels does a WAN operate?

4) State 3 leased line options for connection to a WAN

5) State 2 circuit switched and 2 packet switched technologies associated with WANs

6) State 2 authorities that establish WAN specifications

7) With the aid of a sketch, explain the meaning of the terms DTE and DCE with regards to WANs

8) What is a CSU/DSU as used in WANs and when is this device used?

9) What does HSSI mean in relation to WANs?

10) What is the maximum speed of an EIA/TIA – 612/613 interface?

11) With regards to telephone terminology, explain the meaning of the following terms:

* Local Loop
* Demarcation Point
* CO
* CPE

12) What is ISDN and what is its highest speed with regards to WANs?

13) State 2 advantages of having a leased line for a WAN connection

14) What are the highest speeds for a leased line in USA and in Europe?

15) Label the diagram shown below at both ends of the communication link with terms:

* DCE
* DTE
* CPE
* Demarcation Point
* CO
* Local Loop

