Network Cabling Review

1. The hospital wants a redundant network with three layers of communication. All of their computers have a single embedded NIC. There are 18 computers in the emergency room; there are 25 medical stations with three computers each. The maintenance department has 19 computers and the administration office has 65 computers. We need to order devices along with an addition 10% for spares. How may NICs do we need to order? Show your work.

2. What are the wire colors we see from left to right from the top of the RJ45 connector for a 568B patch cable?

3. What are the wire colors we see from left to right from the top of the RJ45 connector for a 568A end of crossover cable?

4. On a Network with a 10/100/1000 autosensing router and 10/100/1000 autosensing NIC, what is the transmission speed between the devices when we connect them with a Category 5 cable?

5. On a Network with a 10/100/1000 autosensing router and 10/100/1000 autosensing NIC, what is the transmission speed between the devices when we connect them with a Category 3 cable?

6. On a Network with a 10/100/1000 autosensing router and 10/100/1000 autosensing NIC, what is the transmission speed between the devices when we connect them with a Category 6 cable?

7. How many twisted pairs in a Category 6 cable?

8. What ends are on a Category 6 crossover cable?

9. How long will it take to transmit a 3 GB file on a 1 Gbps transmission line?

10. What type of cable is required to link two hubs without upload ports?

11. What type of cable is required to link two hubs with upload ports?

12. What type of Category 6 cable is more expensive because it is fire resistant?

13. How long can a 10base2 segment transmit?

14. How long can a 10base5 segment transmit?

15. How long can a 1000baseT segment transmit?

16. How long can a 10base2 network transmit?

17. How long can a 10base5 network transmit?

18. How many segments can we put in a 10base2 or 10base5 network?

19. How many repeaters can we put in a 10base2 or 10base5 network?

20. How many segments can we populate on a 10base2 or 10base5 network?

21. What is the maximum number of devices on a 10base2 network segment?

22. What is the maximum number of devices on a 10base5 network segment?

23. What is the value of the line terminator on a 10base2 network?

24. What is the value of the line terminator on a 10base2 network?

25. What is the maximum number of devices on a 100baseT network?