

TS05 - Pre-Instructional Survey

Name _____ Date _____

1. If two devices are both DTEs and the signaling is EIA-232F then:
 - a) The cabling can be run straight through.
 - b) Since they are both DTEs, they share the same protocol.
 - c) Cabling crosses over 2 and 3. No wires go straight through except 7.
 - d) The voltage levels will be 0 to 5 Volts.

2. EIA-422 has better noise immunity than EIA-232E because:
 - a) The cabling can be run straight through.
 - b) EIA-422 uses a balanced signal.
 - c) EIA-422 isn't better than EIA-232.
 - d) The voltage levels are increased.

3. The traditional MODBUS protocol suite contains what protocol layers?
 - a) Layers 1, 2 and 4.
 - b) All 7 layers.
 - c) Layers 1, 2 and 7.
 - d) It doesn't have layers.

4. The problem with EIA-232F is:
 - a) The limited distances it can travel.
 - b) The limited data rates at which it can be run.
 - c) Ground loops.
 - d) All of the above.

5. Asynchronous data communications means that:
 - a) You must use EIA-232F.
 - b) Each character in the message has its own timing bits.
 - c) Data is always sent randomly.
 - d) The voltage levels are increased randomly.

6. You normally can't connect two supervisory (SCADA) PCs together using MODBUS because:
 - a) The cabling is too difficult.
 - b) Both are MODBUS masters.
 - c) You can and it will work fine.
 - d) The voltage levels increase until one explodes.

7. Allen-Bradley DH+ is different from DH because:
 - a) It has a different message format.
 - b) It uses a different cable type.
 - c) It uses a different media access method.
 - d) The difference is just marketing fluff.

8. Plugging a serial cable into a parallel port will:
 - a) Require cross-over cabling, which is difficult to do.
 - b) Cause the parallel port to become a serial port
 - c) Work well for slow speed communications.
 - d) Cause the serial voltage levels to burn out the parallel port.

9. The data link layer includes protocols that look after:
 - a) Framing.
 - b) Media access control.
 - c) Physical addressing.
 - d) All of the above.

10. The industrial 4-20 mA current loop standard is:
 - a) Based on the MODBUS protocol.
 - b) An analog, simplex signaling system.
 - c) A digital signaling system.
 - d) Based on EIA-232F voltage levels.

11. Ethernet and IEEE 802.3 are:
- a) Exactly the same physical and datalink standards.
 - b) Completely different physical and datalink standards.
 - c) Two names for essentially the same LAN standard although originally there were minor differences
 - d) Not physical and datalink standards at all.
12. Which layer of the ISO OSI Model defines protocols for message routing?
- a) Layer 1
 - b) Layer 2
 - c) Layer 3
 - d) Layer 7
13. If a 10BASE5 LAN (Thickwire) experiences a sudden increase in collisions, it is indicative of:
- a) Poor insurance policies.
 - b) Open coax cable.
 - c) Too high data rate.
 - d) None of the above; this situation will not occur.
14. A 10BASE2 network (Thinwire) had the last computer on the East segment removed and it brought the network down. What is the probable cause?
- a) Computer was removed with power on.
 - b) Terminating resistor was left off of cable.
 - c) The remaining NICs had higher serial numbers.
 - d) The network management software detected an error.
15. Dial-up over POTS uses this layer 2 protocol to connect to the Internet:
- a) PPTP
 - b) ISDN
 - c) PPP
 - d) HTTP

16. IEEE 802.5 describes which of the following?

- a) Token passing ring.
- b) Token passing bus.
- c) CSMA/CD bus.
- d) DLL Format.

17. 10BASE-T refers to an IEEE 802.3 (Ethernet) LAN and indicates:

- a) 100 Mbps, baseband, STP, 100 meter segment length.
- b) 10 Mbps, baseband, UTP, 100 meter segment length.
- c) 100 Mbps, baseband, UTP, 10 meter segment length.
- d) 10 Mbps, baseband, RG-58 A/U Coax, 185 meter segment length.

18. A bridge operates at which layer of the OSI model:

- a) Layer 1
- b) Layer 2
- c) Layer 3
- d) Layer 7

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1. c
2. b
3. c
4. d
5. b

6. b
7. c
8. d
9. d
10. b

11. c
12. c
13. b
14. b
15. c

16. a
17. b
18. b