Chapter 2 - QUIZ – PPP

1. Place the PPP establishment steps listed on the left in the correct order, by changing each step to the appropriate sequence number on the right.
   A. Send link-establishment frames to negotiate options like MTU size, compression, and authentication. ➔ Step 1
   B. Send configuration-acknowledgement frames. ➔ Step 2
   C. Test link quality (optional). ➔ Step 3
   D. Negotiate Layer 3 protocol options. ➔ Step 4
   E. NCP reaches Open state. ➔ Step 5

2. Which output from the **show interfaces s0/0/0** command indicates that the far end of a point-to-point link has a different encapsulation set than the local router?
   A. serial 0/0/0 is down, line protocol is down.
   B. serial 0/0/0 is up, line protocol is down.
   C. serial 0/0/0 is up, line protocol is up (looped).
   D. serial 0/0/0 is up, line protocol is down (disabled).
   E. serial 0/0/0 is administratively down, line protocol is down.

3. What is the default encapsulation for serial interfaces on a Cisco router?
   A. HDLC
   B. PPP
   C. Frame Relay
   D. X.25

4. What is the function of the protocol field in a PPP frame?
   A. It identifies the Application Layer protocol that processes the frame.
   B. It identifies the Transport Layer protocol that processes the frame.
   C. It identifies the Data Link Layer protocol encapsulated in the data field of the frame.
   D. It identifies the Network Layer protocol encapsulated in the data field of the frame.

5. Match the term on the left to the associated description on the right. Not all terms are used.
   A. Stacker/predictor ➔ compression protocol
   B. Magic number ➔ error control
   C. Multilink ➔ allows load balancing
   D. CHAP/PAP ➔ authentication protocol
   E. Call in ✗

6. Which three statements describe the function of time-division multiplexing. (Choose three.)
   A. Multiple data streams share one common channel.
   B. Bit interleaving controls the timing mechanism that places data on the channel.
   C. Time slots are utilized on a first-come, first-served basis.
   D. Statistical time-division multiplexing (STDM) was developed to overcome the inefficiency caused by time slots still being allocated, even when the channel has no data to transmit.
   E. Sources of data alternate during transmission and are reconstructed at the receiving end.
   F. Priority can be dedicated to one data source.

7. What describes the serial connection between two routers using the HDLC protocol?
   A. synchronous or asynchronous bit-oriented transmissions using a universal frame format.
   B. synchronous bit-oriented transmissions using a frame format that allows flow control and error detection.
   C. asynchronous bit-oriented transmissions using a frame format derived from the Synchronous Data Link Control (SDLC) protocol.
   D. asynchronous bit-oriented transmissions using a V.35 DTE/DCE interface.

8. If an authentication protocol is configured for PPP operation, when is the client or user workstation authenticated?
   A. prior to link establishment.
   B. during the link establishment phase.
   C. before the Network Layer protocol configuration begins.
   D. after the Network Layer protocol configuration has ended.

9. Why are Network Control Protocols used in PPP?
   A. to establish and terminate data links.
   B. to provide authentication capabilities to PPP.
   C. to manage network congestion and to allow quality testing of the link.
   D. to allow multiple Layer 3 protocols to operate over the same physical link.

10. Which statement describes PAP?
   A. It sends encrypted passwords by default.
   B. It uses a two-way handshake to establish identity.
   C. It protects against repeated trial-and-error attacks.
   D. It requires the same username to be configured on every router.

11. A technician testing functionality of a recently installed router is unable to ping the serial interface of a remote router. The technician executes the **show interface serial 0/0** command on the local router and sees the following line in the router: **Serial 0/0 is down, line protocol is down**
   What are two possible causes for this command output? (Choose two.)
   A. **clockrate** command missing.
   B. carrier detect signal not sensed.
   C. keepalives not being sent.
   D. interface disabled due to high error rate.
   E. interface shutdown.
   F. cabling is faulty or incorrect.

12. The network administrator is configuring Router 1 to connect to Router 2 using a three-way handshake authentication. Match the commands necessary to configure Router 1 from the left to their descriptions on the right. Not all commands are used.

A.	username Router 2 password cisco	➔	configure the username and password
B.	username Router 1 password cisco	X	
C.	interface serial 0/1/0	➔	enter interface configuration mode
D.	encapsulation ppp	➔	specify encapsulation type
E.	encapsulation hdlc	X	
F.	ppp authentication pap	X	
G.	ppp authentication chap	➔	configure authentication

13. What is required to establish a connection between two routers using CHAP authentication?
   A. The hostnames of both routers must be the same.
   B. The usernames of both routers must be the same.
   C. The enable secret passwords configured on both routers must be the same.
   D. The password configured with the **username** of the router must be the same on both routers.
   E. The **ppp chap sent-username** command must be configured the same on both routers.

14. Match each characteristic on the left with the authentication protocol on the right.

A.	two-way handshake	➔	PAP
B.	three-way handshake	➔	CHAP
C.	open to trial-and-error attacks	➔	PAP
D.	password sent in clear text	➔	PAP
E.	periodic verification	➔	CHAP
F.	uses one-way hash function	➔	CHAP

15. Match the descriptions on the left to the appropriate protocol on the right. Not all descriptions are used.

A.	negotiates link establishment parameters	➔	LCP
B.	negotiates Layer 3 protocol parameters	➔	NCP
C.	maintains / debugs the link	➔	LCP
D.	can negotiate multiple Layer 3 protocols	➔	NCP
E.	terminates link	➔	LCP
F.	only negotiates IP and AppleTalk	X	
G.	uses MD5 encryption	X	