1.In Go-Back-N ARQ, if 5 is the number of bits for the sequence number, then the maximum size of the receive window must be \_\_\_\_\_\_\_.

**A)   1**

B)   15

C)   16

D)   31

2. In Go-Back-N ARQ, if frames 4, 5, and 6 are received successfully, the receiver may send an ACK \_\_\_\_\_\_\_ to the sender.

A)   6

**B)   7**

C)   5

D) 8

3. The Stop-And-Wait ARQ, Go-Back-N ARQ, and the Selective Repeat ARQ are for \_\_\_\_\_\_ channels.

A)   noiseless

**B)   noisy**

C)   restful state

D)   stateless

4. The \_\_\_\_\_\_\_\_\_Protocol, adds a simple error control mechanism to the \_\_\_\_\_\_\_Protocol.

A)   Selective Repeat ARQ; Go-Back-N ARQ

B)   Go-Back-N ARQ; Stop-and-Wait

**C)   Stop-and-Wait ARQ; Stop-and-Wait**

D)   none of the above

5. In PPP, the \_\_\_\_\_\_\_\_ is responsible for establishing, maintaining, configuring, and terminating links.

A)   PAP

B)   CHAP

**C)   LCP**

D)   NCP

6. In Selective Repeat ARQ, if 5 is the number of bits for the sequence number, then the maximum size of the receive window must be \_\_\_\_\_.

A)   1

B)   15

**C)   16**

D)   31

7. In Go-Back-N ARQ, if 5 is the number of bits for the sequence number, then the maximum size of the send window must be \_\_\_\_\_.

A)   1

B)   15

C)   16

**D)   31**

8. \_\_\_\_\_\_\_ control refers to a set of procedures used to restrict the amount of data that the sender can send before waiting for acknowledgment.

A)   Flow

**B)   Error**

C)   Transmission

D)   none of the above

9.In \_\_\_\_\_\_\_\_ framing, we need a delimiter (flag) to define the boundary of two frames.

A)   standard

B)   fixed-size

**C)   variable-size**

D)   none of the above

10.In \_\_\_\_\_\_\_\_\_ protocols, we use \_\_\_\_\_\_\_\_.

A)   bit-oriented; character stuffing

B)   character-oriented; bit stuffing

**C)   character-oriented; byte stuffing**

D) bit oriented, character stuffing

11.Which is a unit of data transmission

**A)Frame**

B)Stop and wait ARQ

C)HDLC

D)Frame relay

12. A special eight-bit sequence \_\_\_\_\_\_\_\_ is referred to as a flag

A)01111111

**B)01111110**

C)11101110

D)11101110

13)  \_\_\_\_\_\_\_ in the data link layer separates a message from one source to a destination, or from other messages going from other sources to other destinations.

A)   Controlling

**B)   Framing**

C)   Digitizing

D)   Quantising

14) In the \_\_\_\_\_ Protocol, the sender sends one frame, stops until it receives confirmation from the receiver, and then sends the next frame.

A)   Simplest

**B)   Stop-and-Wait**

C)   Selective-Repeat ARsQ

D)   Go-Back-N ARQ

15) The \_\_\_\_\_\_\_Protocol has flow control, but not error control.

**A)   Selective-Repeat ARQ**

B)   Stop-and-Wait

C)   Simplest

**D)   Go-Back-N ARQ**