What are the values (in hex, with no prefix 0x) of the following fields in the PPP frame that carries IP datagrams?

Starting flag = 0x7E

Address = 0xFF

Control = 0X03

Protocol = 8021

Ending flag = 0x7E

This figurer shows the format of a standard Ethernet frame.

(1)	(2)	(3)	(4)	(5)

1, (1) is the field of D.MAC , its size is 6 bytes.

2, (2) is the field of S.MAC , its size is 6 bytes.

3, (3) is the field of Type , its size is 2 bytes.

4, (4) is the field of Data , its maximum size is 46~1500 bytes.

5, (5) is the field of FCS , its size is 4 bytes.

The "semantics" of the network protocol means _____.

选择一项:

○ 1. data format

○ 2. operations to take

○ 3. data type

○ 4. events or operations timing

Assume that the data link layer uses the Go-back-N (GBN) protocol. The sender has sent frames numbered 0 to 6. When the timer expires, if the sender only receives acknowledgements for frames 0, 2, and 3, how many frames does the sender need to resend?

选择一项:

- ○ 1. 5
- ○ 2. 4
- ○ 3. 7
- ◉ 4. 6
- ○ 5. 3

清除我的选择

The "semantics" of the network protocol means _____.

选择一项:

- ○ 1. data format
- ◉ 2. operations to take
- ○ 3. data type
- ○ 4. events or operations timing

清除我的选择

Spanning Tree Protocol (STP) provides protection against _____.

选择一项:

- ○ 1. VLAN hopping
- ○ 2. Switch loops
- ○ 3. Fault tolerance
- ◉ 4. Router loops
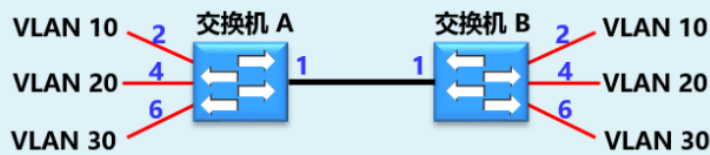
清除我的选择

Which two functions are provided by the NCP during a PPP connection?

选择一项或多项:

- ☐ 1. enhancing security by providing callback over PPP
- ☑ 2. negotiating options for the IP protocol
- ☐ 3. bringing the network layer protocol or protocols up and down
- ☐ 4. managing authentication of the peer routers of the PPP link

---

A switched network is as below. 3 VLANS have been created.

VLAN 10 ─2─ 交换机 A ─1───1─ 交换机 B ─2─ VLAN 10
VLAN 20 ─4─ ... VLAN 20
VLAN 30 ─6─ ... VLAN 30

The frame entering and exiting switch A's interface 1 is [Trunk frame ▼] ,
the frame entering and leaving switch A's interface 2 is [untagged Ethernet frame ▼] .

The minimum Ethernet frame size is _____ bytes.

选择一项:

- ○ 1. 46
- ○ 2. 512
- ○ 3. 32
- ◉ 4. 64

清除我的选择

Using stop and wait protocol, sender wants to transmit 10 data packets to the receiver. Out of these 10 data packets, every 4th (i.e 4th, 8th, 12th, ...) data packet is lost. How many packets sender will have to send in total?
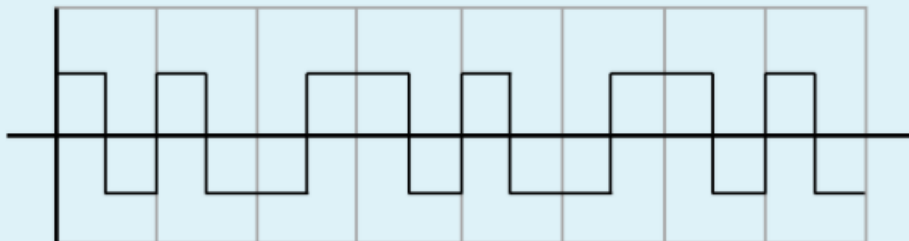
选择一项:
- ○ 1. 10
- ◉ 2. 13
- ○ 3. 12
- ○ 4. 14
- ○ 5. 11

清除我的选择

Assume 4 VLANs are configured on an 16-port Ethernet switch.

This switch has 16   collision domains and 4   broadcast domains.

The Manchester waveform of a binary bit stream is shown in the figure.

Assume that the transition from high to low represents 1, and the transition from low to high represents 0.

The binary bit stream represented by this waveform is

11011011   (do not leave any spaces before and after each bit).

Drag the correct answer then drop it to the box of the corresponding color.

The 1 Gbps means that [1.25 x 10^8] bytes can be transferred per second. If a 100 MB data block is sent at this rate, it takes [0.84] seconds.

[1 x 10^9]   [8 x 10^9]   [1 x 10^8]

[8.40] [838.9]   [83.89]

A and B are the only two stations on Ethernet. Each has a steady queue of frames to send. Both A and B attempts to transmit a frame, collide and A wins first back off race. At the end of this successful transmission by A, both A and B attempt to transmit and collide. The probability that A wins the second back off race is [5/8] .

Which codes can be used to correct errors?

选择一项或多项:

☐ 1. Parity Check

☐ 2. Hamming codes

☑ 3. Cyclic Redundancy Checks (CRCs)

☐ 4. Binary convolutional codes

Suppose a bit stream 100100 is transmitted using the standard CRC method. The generator polynomial is 1101. The CRC is:

选择一项:

○ 1. 010

○ 2. 100

◉ 3. 001

○ 4. 011

Which layer provides end-to-end communication?

选择一项:

- ○ a. Network
- ○ b. Data Link
- ● c. Transport
- ○ d. Application

清除我的选择

True or False.

If the CRC checksum calculated at the receiving end equals 0, it means that the received frame has no errors.

选择一项:
- ○ 对
- ● 错

What term describes a computing model where server software runs on dedicated computers?

选择一项:

- ○ 1. switch
- ○ 2. peer-to-peer
- ○ 3. network
- ○ 4. remote access
- ○ 5. cloud
- ● 6. client/server

清除我的选择