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### Question: 1

Which of the following communication types are defined based on information interaction between the transmitter and the receiver? (Select multiple)

- A. Simplex
- B. Half-duplex
- C. Duplex
- D. Auto-negotiation

**Answer: C,D**

### Question: 2

The Advanced Research Projects Agency Network (ARPANET) network is created by United States Department of Defense and is the predecessor of the contemporary global. Which of the following is the basis of an ARPANET network?

- A. MPLS forwarding
- B. Packet switching
- C. Circuit switching
- D. Low-speed serial connection

**Answer: B**

### Question: 3

In a TCP/IP protocol stack, the headers of packets at each layer are removed in the decapsulation process in a specified manner. Which of the following is the right manner?

- A. From lower to upper
- B. From Transport Layer to the lower layers
- C. From upper to lower
- D. From Network Layer to the upper layers

**Answer: D**

### Question: 4

What is the PDU (Protocol Data Unit) that resides at physical layer called?

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- A. Packet
  - B. Frame
  - C. Segment
  - D. Binary bit flow

**Answer: C**

### Question: 5

Which network component is used to carry a hardware address, for example, MAC address used for communication between devices on the same link?

- A. PIC
- B. Network interface card
- C. POWER
- D. FAN

**Answer: B**

### Question: 6

Where do RPC, NFS and SQL protocols reside at the OSI reference model?

- A. Transport layer
- B. Presentation layer
- C. Network layer
- D. Session layer

**Answer: D**

### Question: 7

Which of the following statements about the IPv6 fragmentation operation is correct?

- A. ICMPv6 is not applicable for fragmentation
- B. Fragmentation can occur only on the start host
- C. Fragmentation can occur only on the start router
- D. Fragmentation operations are similar to Ipv4 operations

**Answer: A**

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### Question: 8

Which of the following statements about broadcast in IPv6 is correct?

- A. Broadcast in LAN can affect all nodes.
- B. Broadcast is not used in IPv6.
- C. The definition of broadcast in the IPv6 network is pending.
- D. Broadcast, as a basic mechanism, is used in various IPv6 operations.

**Answer: B**

### Question: 9

IPv6 cancels the option field in the IPv4 packet header and adds multiple extended packet headers, which improves the processing efficiency and enhances the flexibility of IPv6 and provides a good scalability for the IP protocol.

- A. True
- B. False

**Answer: A**

### Question: 10

Tracert is an application based on application layer, which transport layer protocol is used by Tracert?

- A. ICMP
- B. TCP
- C. UDP
- D. ARP

**Answer: A**

### Question: 11

Which of the following fibers allows for multiangular incidence of "multiple" beams of light for transmission?

- A. 4-core fiber

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- B. "Single-mode" fiber
  - C. Active fiber
  - D. Multimode fiber

**Answer: D**

### Question: 12

Which of the following is valid host IP address?

- A. 122.245.264.13/26
- B. 192.168.2.15/28
- C. 10.0.2.128/26
- D. 224.0.4.5
- E. 12.3.4.6/24

**Answer: E**

### Question: 13

How many hosts are available for a class B IP address?

- A. 2M
- B. 16K
- C. 64K
- D. 254

**Answer: C**

### Question: 14

The first three octets of a Class C IP address represent a network. Which of the following binary numbers does the first byte of the three octets start with?

- A. 10
- B. 101
- C. 110
- D. 100

**Answer: C**

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### Question: 15

The subnet mask of a class A address is 255.255.240.0. How many bits are used for sub-netting?

- A. 9
- B. 12
- C. 4
- D. 5

**Answer: B**

### Question: 16

Which of the following protocols can be used for file transfer? (Select multiple)

- A. Icmp
- B. Telnet
- C. TFTP
- D. FTP

**Answer: C,D**

### Question: 17

For a class C IP address, how many bits at most can be used for sub-netting?

- A. 8
- B. 14
- C. 6
- D. 12

**Answer: C**

### Question: 18

Which of the following destination ports is used when the TFTP client connects to the TFTP server?

- A. 20
- B. 53
- C. 21

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D. 69

**Answer: C**

### Question: 19

How many bits does a MAC address have?

- A. 24
- B. 6
- C. 12
- D. 48

**Answer: D**

### Question: 20

Which layer is used to implement internal communication of a same IP network segment in an IP network?

- A. Layer 3
- B. Layer 2
- C. Application Layer
- D. Physical Layer

**Answer: A**

### Question: 21

Which of the following statements regarding collision is incorrect?

- A. Reduce the number of hosts in a network can decrease probability of collision.
- B. Each ports of switch is an independent collision domain.
- C. The collision that happens in the network connected with one port of a switch will affect another network connected with another port of the switch.
- D. The number of the collision domains will be increased if the hub in the network is replaced with the bridge.

**Answer: C**

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### Question: 22

A MAC address consists of 48 bits and is generally expressed in 12-bit dotted decimal notation. What kind of address does a MAC address consisting of all 1s stand for?

- A. Virtual address
- B. Multicast address
- C. Broadcast address
- D. Unicast address

**Answer: C**

### Question: 23

Which of the following are the advantages of RSTP compared with STP? (Select multiple)

- A. If the designated port is connected with P2P link, it can make a handshake with the connected bridge and enter the forwarding state immediately after it receives a response.
- B. Once a port of the switch which is configured as edge port has been enabled, it will become designated port immediately and transit to forwarding state.
- C. If the designated port is connected with P2MP link, it can make a handshake with the connected bridge and enter the forwarding state immediately after it receives a response.
- D. A new root port is elected on the non-root switch and the previous old root port is no longer in forwarding state. Moreover the designated port of the segment which connects with the new root port already starts to forward the data. In this case, the new root port can enter forwarding state immediately.

**Answer: A,B,D**

### Question: 24

During STP calculation, when a port is in a certain state, it neither forwards any data frame nor learns MAC address labels. Instead, it only receives and processes STP protocol packets. Which state does the abovementioned state refer to?

- A. Listening
- B. Forwarding
- C. Learning
- D. Blocking

**Answer: D**

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### Question: 25

Which attribute is selection of a root bridge based on when the spanning tree is calculated by the STP?

- A. Path Cost
- B. Port ID
- C. Bridge ID
- D. Port Cost

**Answer: C**

### Question: 26

Where is A VLAN in the Ethernet used to separate?

- A. Layer 2 multicast domain
- B. Layer 2 broadcast domain
- C. Layer 2 MAC address
- D. Layer 2 unicast domain

**Answer: B**

### Question: 27

What action does an access port take in the process of sending packets?

- A. Exchanges the VLAN information between packets and then sends out the packet.
- B. Strips the VLAN information off the packet and then directly sends out the packet.
- C. Attaches its PVID information to the packet.
- D. Sends tag packets.

**Answer: B**

### Question: 28

Which of the following statements about VLAN communication are true? (Select multiple)

- A. Layer 3 VLAN interfaces can be configured on a Layer 2 switch to implement VLAN communication.
- B. One-arm routing can be configured for a Layer 2 switch only by using a router to implement VLAN communication.



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- C. One-arm routing can be configured for a Layer 3 switch only by using a router to implement VLAN communication.
  - D. Layer 3 VLAN interfaces can be configured on a Layer 3 switch to implement VLAN communication.

**Answer: B,D**

### Question: 29

Which of the following are the formats of Ethernet frame in the switching network? (Select multiple)

- A. Tagged frame
- B. FDDI frame
- C. Token frame
- D. Untagged frame

**Answer: A,D**

### Question: 30

Which of the following descriptions about VRRP priority are correct? (Select multiple)

- A. The owner of Virtual IP address always uses 0 as running priority despite of its configured priority.
- B. The owner of Virtual IP address always uses 255 as running priority despite of its configured priority.
- C. When the master of VRRP stop running VRRP, the router will send a VRRP notification packet whose priority field is 0.
- D. A router with VRRP priority 0 will not take part in master election and can permanently act as slave.

**Answer: B,C**