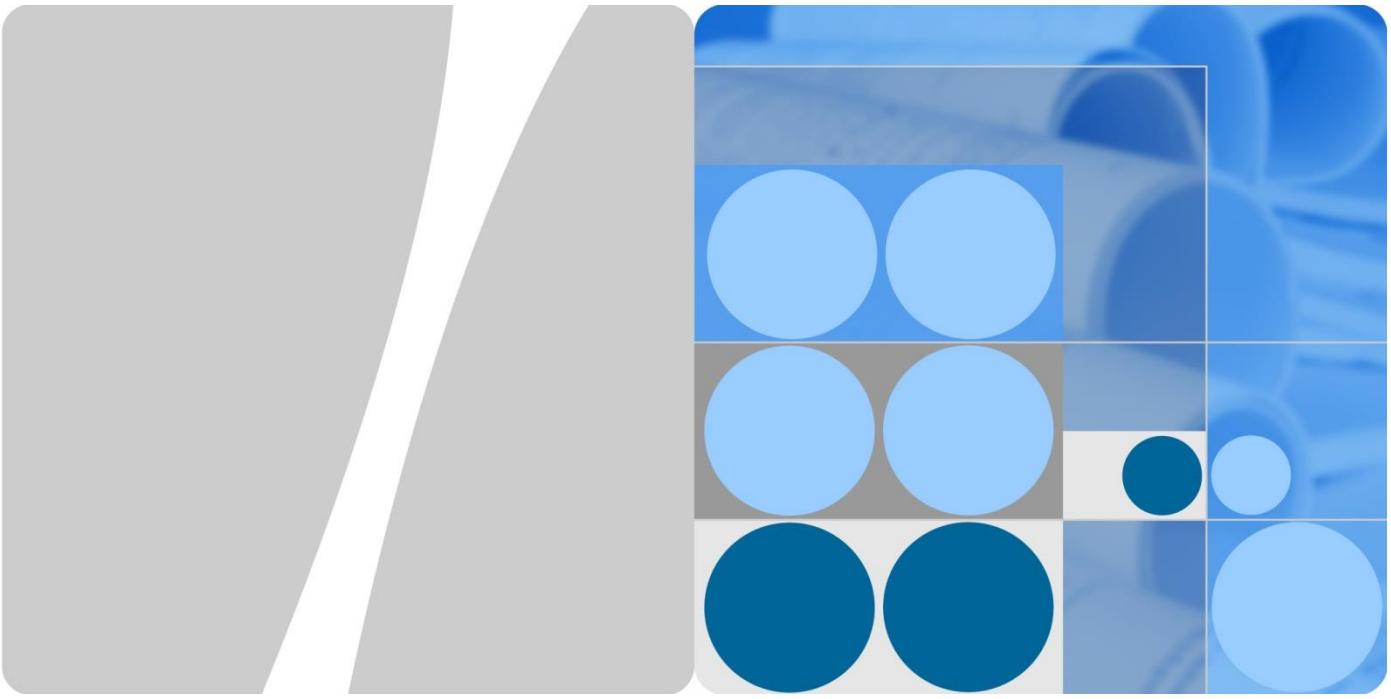

HAINA

Routing and Switching Technology Question Library

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1 Basic Enterprise Network Architectures

1.1 Question

1. (Multiple Choice) Which of the following network topologies are the widely used backbone network topologies? (Select 2 Answers)

A.Full Mesh

B.Plane Hierarchical structure

C.Plane and Space Hierarchical structure

D.Multi-homing structure

2. (Multiple Choice) The metropolitan area network which is located between backbone network and access network consists of ( ). (Select 3 Answers)

A.Carrier layer

B.Core layer

C.Convergence layer

D.Access layer

3. (Single Choice) In a complete IP network, which of the following networks does a Layer 2 network under the service access control point belong to?

A.Backbone network

B.Metropolitan area network (MAN)

C.Access network

D.Core network

4. (Multiple Choice) When a backbone network uses dual planes, which of the following statements are true? (Select 2 Answers)

A.When a fault occurs on one plane, the other plane cannot function as the backup of the faulty plane.

B.The two planes generally carry different services.

C.In normal situations, the services on the two planes do not affect each other.

D.Compared with a dual-plane structure, a hierarchical plane is more reliable.

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1.2 Reference Answer

1. BC 2.BCD 3.C 4.BC

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2 Enterprise Network Constructs

2.1 Question

1. (Single Choice) Keyboard is used to input data only. Which of the following is the transmission mode of the keyboard?

A.Simplex mode

B.Half-duplex mode

C.Full-duplex mode

D.Auto negotiation

2. (Multiple Choice) Which of the following communication types are defined based on information interaction between the transmitter and the receiver? (Select 3 Answers)

A.Simplex

B.Half-duplex

C.Duplex

D.Auto-negotiation

3. (Single Choice) Coaxial cables can be classified into different types by diameter. One of these types of the coaxial cables is suitable for relatively large LAN because it supports long distance and provides high reliability. Which of the following coaxial cables belongs to this type?

A.Coaxial cable with a large diameter

B.Coaxial cable with a small diameter

C.10-core coaxial cable

D.16-core coaxial cable

4. (Single Choice) A transmission medium consists of glass fibers and a shield layer. It is free from interference of magnetic signals and provides high-speed and long-distance transmission. But such a matter is very expensive. What is this matter?

A.Coaxial cable

B.Twisted pair cable

C.Optical fiber

D.Waveguide fiber

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5. (Multiple Choice) Which device operates at physical layer?

A.Switch

B.Hub

C.Router

D.Firewall

6. (Multiple Choice) What are transmission media of physical layer? (Select 3 Answers)

A.Fiber

B.Twisted pair cable

C.Radio wave

D.Ethernet

7. (Multiple Choice) What are wiring standards for physical layer related to LAN? (Select 3 Answers)

A.100Base-T

B. HDLC

C.100Base-FX

D.1000Base-SX/LX

8. (Multiple Choice) Which of the following are physical interfaces? (Select 4 Answers)

A.Dialer interface

B.Voice interface

C.Serial interface

D.Sub interface

E.CE1/PRI interface

F. Virtual interface template

G.. ISDN BRI interface

9. (Single Choice) Which of the following fibers allows for multiangular incidence of “multiple” beams of light for transmission?

A.4-core fiber

B.“Single”-mode fiber

C.Multimode fiber

D.Active fiber

10. (Single Choice) To improve a twisted pair cable's capability to withstand magnetic interference, which of the following layers can be added as a shield layer of the twisted pair cable?

A.STP

B.UTP

C.BTP

D.RPR

11. (Single Choice) Both analog transmission and digital transmission can use twisted pair cables. Which of the following statement is true?

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A.The communication distance increases with the diameter of the conductor.

B.The communication distance decreases with the diameter of the conductor.

C.The communication distance is independent of the diameter of the conductor.

D.The communication distance increases with the diameter of the conductor when the communication distance exceeds 50 km.

12. (Single Choice) In Ethernet standard, which of the following mechanisms is used to avoid collision when different nodes transmit packets simultaneously?

A.CSMA/CA

B.CSMA/DA

C.CSMA/CD

D.CSMA/AC

13. (Single Choice) The distance limit of category 5 UTP wiring is ( ).

A.100 meters

B.200 meters

C.50 meters

D.185 meters

14. (Single Choice) Two computers are connected to each other by using twisted pair cable. The correct wiring sequence is ( ).

A.Computers can not be directly connected with twisted pair cable

B.1--1, 2--2, 3--3, 4--4, 5--5, 6--6, 7--7, 8--8

C.1--3, 2--6, 3--1, 4--4, 5--5, 6--2, 7--7, 8--8

D.1--2, 2--1, 3--6, 4--4, 5--5, 6--3, 7--7, 8-8

15. (Single Choice) A PC is connected to router's Ethernet port through its network interface card. What type of cable should be used to connect these two interfaces?

A.Cross cable

B.Straight cable

C.Console cable

D.Backup cable

16. (Single Choice) How long can a fast Ethernet cable 100BaseTX or 100BaseT4 transmit a signal?

A.100m

B.550m

C.1000m

D.2000m

17. (Single Choice) How long can a Gigabit Ethernet cable 1000BaseT transmit a signal?

A.100m

B.550m

C.1000m

D.2000m

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18. (Multiple Choice) Which transmission rates does an Ethernet allow for? (Select 3 Answers)

A.10M

B.100M

C.1000M

D.155M

19. (Single Choice) After receiving a data frame from any port, a hub forwards it to any other port.

T.True

F.False

20. (Single Choice) Which communication mode does a hub work in?

A.Simplex

B.Half-duplex

C.Full-duplex mode

D.Auto-negotiation

21. (Single Choice) Which type of Ethernet uses hubs?

A.Star Ethernet

B.Shared Ethernet

C.Switched Ethernet

D.Token ring Ethernet

22. (Multiple Choice) The physical medium used by Ethernet include ( ). (Select 3 Answers)

A.Coaxial cable

B.Twisted pair cable

C.Optical fiber

D.V.35 cable

23. (Single Choice) multiple PCs are connected to the same hub through twisted pair cables. What's its logical topology structure?

A.Star

B.Tree

C.Mesh

D.Ring

E.Bus

24. (Single Choice) Under Which of the following circumstances, “multiple” work stations belong to the same collision domain?

A.“multiple” workstations are connected to a hub through twisted pair cables

B.“multiple” workstations are connected to a LAN switch through twisted pair cables

C.“multiple” workstations are connected to a router through twisted pair cables

D.“multiple” workstations are connected to a bridge through twisted pair cables

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25. (Multiple Choice) In late 1980s, UTP appeared and was widely used. Which of the following are advantages of UTP? (Select 3 Answers)

A.Low price

B.Easy to manufacture

C.Receive and transmit using different wires

D.Both of the physical and logical topology is bus type

26. (Single Choice) How to eliminate the collision in Ethernet?

A.Increase the length of cable

B.Decrease the number of transmitted packets

C.Decrease the number of users on each network segment

D.Replace the hub and repeater with switch or bridge

27. (Single Choice) Which of the following statements regarding collision is incorrect?

A.Each ports of switch is an independent collision domain.

B.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.

C.The number of the collision domains will be increased if the hub in the network is replaced with the bridge.

D.Reduce the number of hosts in a network can decrease probability of collision.

28. (Multiple Choice) What kind of wirings does 100BaseT4 Fast Ethernet specification use? (Select 3 Answers)

A.Category 3 UTP

B.Category 4 UTP

C.Category 5 UTP

D.Category 6 UTP

29. (Single Choice) An Ethernet electrical port can work in three types of duplex modes, whereas an Ethernet optical port can work in only one mode. Which of the following represents this mode?

A.Full-duplex

B.Half-duplex

C.Auto-negotiation

D.Simplex

30. (Single Choice) Which layer implements auto-negotiation in an Ethernet without using private datagrams?

A.Application Layer

B.Network Layer

C.Data Link Layer

D.Chips at Physical Layer

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2.2 Reference Answer

1. A	2. ABC	3.A	4. C	5.B	6.ABC	7,.ACD	8.BCEG
9.C	10.A	11.A	12.C	13.A	14.C	15.A	16.A
17.A	18.ABC	19.T	20.B	21.B	22.ABC	23.E	24.A
25.ABC	26.D	27.B	28. ABC	29.A	30.D		

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3 Ethernet Framing

3.1 Question

1. (Multiple Choice) A complete data communication system includes ( )

A.Sender
B.Receiver
C.Harddisk
D.Message
E.Protocol

2. (Single Choice) The ( ) is the physical path along which a message passes.

A.Sender
B.Receiver
C.Harddisk
D.Message
E.Protocol

3. (Multiple Choice) Network topology type includes: (Select 4 Answers)

A.Bus
B.Star
C.Tree
D.Peer-to-peer
E.Mesh

4. (Single Choice) Which of the following network topologies has the highest reliability?

A.Bus
B.Star
C.Ring
D.Mesh

5. (Multiple Choice) According to the scope of the geographical area,network type includes? (Select 2 Answers)

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A.Campus network

B.LAN

C.WAN

D.Enterprise network

6. (Single Choice) Which organizations drafts RFC (Request for Comments)?

A.IEEE

B.ITU-T

C.IETF

D.ISO

7. (Single Choice) Which of the following standard organizations has defined the protocol for LAN such as 802 series protocols?

A.IEEE

B.ITU-T

C.IETF

D.ETSI

8. (Single Choice) Which network topology has risk of whole network failure when a link is broken?

A.Mesh

B.Bus

C.Star

D.Tree

9. (Multiple Choice) Which of the following network topologies consist of redundant links between any two nodes? (Select 2 Answers)

A.Mesh

B.Star

C.Tree

D.Bus

E.Ring

10. (Single Choice) In data communications, the data format must be determined and agreed by the information creator and the information receiver before the data is transmitted.

T. True

F. False

11. (Multiple Choice) The most significant feature of a local area network (LAN) is that the LAN is intended for only one organization and is geographically limited, allowing interconnections of a limited number of stations. Which of the following transmission media are most common to a LAN? (Select 3 Answers)

A.Fiber

B.Coaxial cable

C.Twisted pair cable

D.ADSL

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12. (Multiple Choice) The OSI reference model defines a simple hierarchical network model for a computer network. Which of the following standardization organizations develops the OSI reference model?

A.ISO

B.IEEE

C.ITU

D.IETF

13. (Single Choice) A network provides data communication services for a relatively large geographical area and is mainly used to interconnect LANs. Which network type does this network belong to?

A.Large LAN

B.Wide area network (WAN)

C.Metropolitan area network (MAN)

D.Backbone network

14. (Single Choice) The bus and star topologies, which are frequently used in a LAN, refer to the physical connection types rather than the logical structure of the network.

T.True

F.False

15. (Single Choice) When a node transmits data over a network medium, the data is transmitted to all the nodes on the network. Which topology does this network use?

A.Star

B.Bus

C.Tree

D.Ring

16. (Single Choice) A topological structure has a central control point to enable easy network design and equipment installation. The network media connect to the area where workstations reside through the hub or switch at the central control point. The disadvantage of such a structure is that a fault on the hub or switch results in a “single”-point fault. Which topology does this type of LAN usually use?

A.Star

B.Bus

C.Tree

D.Ring

17. (Multiple Choice) As a device for converting signals between an edge system and a communications system, a modem is essential in a WAN. A modem is connected to a serial port on a router. Which two of the following transmission modes does the serial port work in? (Select 2 Answers)

A.Synchronous

B.Asynchronous

C.Switching

D.Routing

18. (Single Choice) Which of the following statements is incorrect regarding LAN features?

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A.High transmission efficiency and high reliability

B.The structure is simple and easy to be constructed.

C.Extensive coverage

D.Large coverage scale

19. (Single Choice) In OSI reference model, OSI stands for ( ).

A.Organization Standard Institute

B.Organization Standard Interconnection

C.Open System Internet

D.Open System Interconnection

20. (Single Choice) How many layers are included in OSI reference model?

A.3

B.5

C.6

D.7

21. (Single Choice) According to OSI reference model, when a packet is transmitted from upper layer to lower layer, the header will be ( )

A.Added

B.Removed

C.Rearranged

D.Modified

22. (Single Choice) In OSI reference model, Transport Layer is located at layer ( ).

A.3

B.4

C.6

D.7

23. (Single Choice) In OSI reference model, which layer resides at the bottom?

A.Data link layer

B.Application layer

C.Physical layer

D.Network layer

24. (Multiple Choice) According to OSI reference model, which layer defines mechanical, electrical, functional and procedural functions to realize data transmission?

A.Transport layer

B.Data link layer

C.Network layer

D.Physical layer

25. (Single Choice) The PDU (Protocol Data Unit) that resides at physical layer is called ( )

A.Frame

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B.Packet

C.Segment

D.Binary bit flow

26. (Single Choice) The PDU (Protocol Data Unit) that resides at data link layer is called ( ).

A.Binary bit flow

B.Frame

C.Packet

D.Segment

27. (Multiple Choice) Which of the following protocols reside at data link layer? (Select 3 Answers)

A.PPP

B.HDLC

C.IP

D.IEEE 802.3

28. (Multiple Choice) Data link layer has two sub-layers, they are ( ) (Select 2 Answers)

A.PVC sub-layer

B.MAC sub-layer

C.LLC sub-layer

D.VC sub-layer

29. (Multiple Choice) Which of the following devices operate at data link layer? (Select 2 Answers)

A.Hub

B.Bridge

C.Switch

D.Router

E.Firewall

30. (Single Choice) Which of the following is the broadcast MAC address?

A.FF-FF-FF-FF

B.FF-FF-FF-FF-FF-FF

C.00-00-00-00-00-00

D.00-00-00-FF-FF-FF

31. (Multiple Choice) Which of the following protocols are related to WAN? (Select 2 Answers)

A.Ethernet

B.PPP

C.HDLC

D.UDP

32. (Single Choice) According to OSI reference model, router operates at ( )

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A.Physical layer

B.Data link layer

C.Network layer

D.Application layer

33. (Single Choice) The protocol data unit that resides at network layer is called ( ).

A.Segment

B.Packet

C.Bit

D.Frame

34. (Single Choice) According to OSI reference model, which of the following statements about the function of network layer is correct?

A.Ensure the correctness of data transmission

B.Control the forwarding and routing of data packet

C.Control transmission of bit flow

D.Error correction and flow control

35. (Single Choice) The OSI reference model contains seven layers in two groups, namely, upper layer and lower layer. The upper layer starts from ( ) to Layer 7 and is also called host layer.

A.Layer 2

B.Layer 3

C.Layer 4

D.Layer 5

36. (Single Choice) The upper layer of the OSI reference model ensures that data is transmitted properly. Which of the following at the upper layer is used to ensure this?

A.Hardware

B.Software

C.Both hardware and software

D.Either software or hardware

37. (Single Choice) In the OSI reference model, one layer is used to establish end-to-end connections between hosts and checks for bit errors before data is transmitted or retransmitted. Which of the following layers stands for this layer?

A.Data Link Layer

B.Physical Layer

C.Network Layer

D.Transport Layer

38. (Single Choice) In the OSI reference model, one layer defines the format of data to be sent to the Application Layer in addition to providing data encryption, data encoding, and data conversion. Which of the following layers stands for this layer?

A.Presentation Layer

B.Session Layer

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C.Network Layer

D.Application Layer

39. (Single Choice) In the OSI reference model, one layer converts bits into bytes and then into frames in addition to providing medium access. Which of the following layers stands for this layer?

A.Data Link Layer

B.Session Layer

C.Network Layer

D.Application Layer

40. (Single Choice) In the OSI reference model, one layer transmits bit streams between devices. Which of the following layers stands for this layer?

A.Data Link Layer

B.Physical Layer

C.Network Layer

D.Application Layer

41. (Multiple Choice) Which of the protocols are commonly used at the Data Link Layer of a WAN? (Select 2 Answers)

A.802.2

B.802.4

C.HDLC

D.PPP

42. (Multiple Choice) Which layers in OSI reference model belong to upper layer, also called as host layer and are responsible for data transmission and providing interface for user? (Select 3 Answers)

A.Data link layer

B.Network layer

C.Transport layer

D.Session layer

E.Presentation layer

F. Application layer

43. (Multiple Choice) According to OSI reference model, which of the following presents the correct layer sequence if packet goes from the bottom of the protocol stack to the top?

A.Physical, Data link, Network, Transport, Session, Presentation, Application

B.Physical, Data link, Network, Transport, Presentation, Session, Application

C.Physical, Transport, Data link, Network, Presentation, Session, Application

D.Physical, Data link, Transport, Presentation, Network, Session, Application

44. (Multiple Choice) Which of the following are functions of data link layer? (Select 4 Answers)

A.Physical address definition

B.Network topology discovery

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C.Routing

D.Physical medium access

E.Error checking

45. (Multiple Choice) Which of the following are the advantages of OSI reference model? (Select 3 Answers)

A.Divide the complex network into simple components

B.Make it impossible for network engineers to concentrate on design and development of module functions

C.Define standard interface to realize compatibility for different manufacturers

D.Divide complicated network problem into simple problems to make it easier for learning and operation

46. (Multiple Choice) Which of the following devices have functions of all seven layers of OSI reference model? (Select 2 Answers)

A.Router

B.Email Server

C.Layer three switch

D.Network management server

47. (Multiple Choice) According to TCP/IP reference model, which of the following application layer protocols are based on TCP? (Select 3 Answers)

A.HTTP

B.TFTP

C.FTP

D.SMTP

E.SNMP

48. (Single Choice) A MAC address has ( ) bits.

A.6

B.12

C.24

D.48

49. (Single Choice) MAC address consists of two parts: provider number and serial number. The first 24 bits of MAC address represents provider number, which of the following is the provider number of Huawei?

A.00e0fc

B.0010fe

C.000001

D.0003cf

50. (Single Choice) Hub work at ( ) layer.

A.Physical

B.Data link

C.Network

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D.Application

51. (Single Choice) According to OSI reference model, switch operates at ( ) layer.

A.Physical

B.Data link

C.Transport

D.Application

52. (Single Choice) A switch receives entire data frame and then perform CRC checking,the frame is forwarded unless CRC checking fails. The switch mode for this switch is ?

A.Cut-Through

B.Store-and-Forward

C.Fragment-free

D.Store-free

53. (Multiple Choice) Which of the following are advantages of layer 2 switch compared with hub? (Select 3 Answers)

A.Increase the collision

B.Higher throughput

C.Higher port density

D.Isolate collision domains

54. (Single Choice) ( ) combines “multiple” ports to form an aggregation group. It can be used to balance the traffic among member ports and improve the connection reliability.

A.Port Aggregation

B.Port binding

C.Port load balance

D.Port group

55. (Multiple Choice) The data forwarding of the switch is based on ( ).

A.Source MAC address

B.Destination MAC address

C.Source IP address

D.Destination IP address

56. (Multiple Choice) What describe the working principles of Ethernet Switches? (Select 3 Answers)

A.Receive all the data frames in the network segment

B.Generate MAC address table according to the source MAC address of the received frame

C.Layer 3 packet forwarding

D.Maintain MAC address table with aging mechanism

57. (Single Choice) IEEE 802.3 frame contains ( ) bits of DSAP field. It is used to indicate the upper layer protocols that are used.

A.8

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B.4

C.16

D.24

58. (Single Choice) The last field of Ethernet frame is FCS (Frame Check Sequence). Its length is ( ) bytes.

A.2

B.4

C.8

D.32

59. (Multiple Choice) Which of the following statements about switching modes of LAN switch are true? (Select 2 Answers)

A.Store-and-forward switching mode does not check for error frames.

B.Cut-through switching mode forwards a frame after it received the first 64 octets of the frame.

C.Fragment-free switching mode can check for error frames in the first 64 octets of the frame.

D.Store-and-forward switching mode discards the frame with length less than 64 octets.

60. (Multiple Choice) Port mirroring means to get a copy of the data and then send it to the monitoring device for data analysis and diagnosis. Port mirroring can be divided into ( ). (Select 2 Answers)

A.Port based mirroring

B.Application based mirroring

C.Flow based mirroring

D.Upper layer protocol based mirroring

61. (Single Choice) 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.Multicast address

B.Broadcast address

C.Unicast address

D.Virtual address

62. (Single Choice) Which of the following together with the MAC address of a general L2 switch determines the MAC address table of the L2 switch?

A.RARP table

B.Transmission medium

C.Port

D.ARP table

63. (Single Choice) An L2 switch checks the MAC address forwarding table before it forwards a packet. How does the L2 switch forward a packet that contains an address not listed in the MAC address forwarding table?

A.Multicast

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B.Broadcast

C.Unicast

D.Searching for routes

64. (Single Choice) The data field of standard Ethernet frame is ( ) bytes.

A.40-1500

B.46-1500

C.64-1500

D.64-1518

65. (Single Choice) Which of the following commands can be used to set Ethernet port so that buffer will not overflow when congestion occurs?

A.Flow on

B.Flow-control

C.Flow control

D.Enable flow-control

66. (Multiple Choice) When congestion occurs on port working in full duplex mode, switch will send "PAUSE" frame to the source to notify the source temporarily stop sending message for a short while. Which of the following circumstances can use the "PAUSE" method for flow control? (Select 3 Answers)

A.A pair of terminals

B.A switch and a terminal

C.Congestion that occurs on a stable network

D.The link between two switches

E.End to end flow control

67. (Single Choice) In a destination MAC address, which bit of the address determines whether a frame is sent to a “single” station or a group of stations?

A.7

B.8

C.9

D.10

68. (Single Choice) Regardless of multicast or unicast, an L2 switch establishes its MAC address table entries by means of MAC address learning.

T.True

F.False

3.2 Reference Answer

1. ABDE	2.C	3.ABCE	4.D	5. .BC	6.C	7.A	8.B
9.AE	10.T	11. ABC	12.A	13.B	14.F	15.B	16.A
17.AB	18.D	19.D	20.D	21.A	22.B	23.C	24.D

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25.D 26.B 27.ABD 28.BC 29.BC 30.B 31.BC 32.C

33.B 34.B 35.D 36.B 37.D 38.A 39.A 40.B

41.CD 42DEF 43.A 44.ABDE 45.ACD 46.BD 47.ACD

48.D 49.A 50.A 51.B 52.B 53.BCD 54.A 55.B

56.ABD 57.A 58.B 59.CD 60.AC 61.B 62.C 63.B 64.B

65.B 66.ABD 67.B 68.F

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4 IP Addressing

4.1 Question

1. (Multiple Choice) A typical IP Telecommunication Network include ( ) (Select 3 Answers)

A.Backbone Network

B.Convergence Network

C.Metropolitan Area Network

D.Access Network

2. (Multiple Choice) Which of the following networks are parts of a complete IP network? (Select 3 Answers)

A.Backbone network

B.Metropolitan area network (MAN)

C.Access network

D.Mobile network

3. (Single Choice) Routers are a type of computer equipment for network interconnections. Which layer of the OSI reference model does a router work at?

A.Session Layer

B.Data Link Layer

C.Network Layer

D.Application Layer

4. (Multiple Choice) Which of the following is the feature of IP protocol?

A.Reliable and connectionless oriented

B.Unreliable and connectionless oriented

C.Reliable and connection oriented

D.Unreliable and connection oriented

5. (Multiple Choice) In general, IP address consists of ( ) (Select 2 Answers)

A.Logic address

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B.Link address

C.Network address

D.Host address

6. (Multiple Choice) Interconnected devices of a network are a combination of hardware and software. Which layer are these devices generally located at?

A.Layer 2

B.Layer 3

C.Layer 4

D.Layer 5

7. (Multiple Choice) Which of the following are routed protocols? (Select 2 Answers)

A.IP

B.OSPF

C.BGP

D.IPX

8. (Single Choice) 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 upper to lower

B.From lower to upper

C.From Transport Layer to the lower layers

D.From Network Layer to the upper layers

9. (Single Choice) The common address in an IP address is globally unique. Which of the following addresses can be used repeated in a LAN?

A.Host address

B.Private address

C.Network address

D.Subnet address

10. (Single Choice) The default mask of class B address is ( ).

A.255.0.0.0

B.255.255.0.0

C.255.255.255.0

D.255.225.255.255

11. (Single Choice) How many hosts are available for a class B IP address?

A.254

B.16K

C.64K

D.2M

12. (Multiple Choice) The network address of 125.3.54.56 with default subnet mask is ( )

A.125.0.0.0

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B.125.3.0.0

C.125.3.54.0

D.125.3.54.32

13. (Single Choice) Which of the following class has the first octet beginning with "1110"?

A.Class A

B.Class B

C.Class C

D.Class D

14. (Single Choice) Which of the following is reserved for loopback address?

A.127.0.0.0

B.130.0.0.0

C.164.0.0.0

D.200.0.0.0

15. (Single Choice) In TCP/IP protocol, what is the decimal range of the first octet of class A address?

A.0---126

B.0---127

C.1---126

D.1---127

16. (Single Choice) For a traditional class C network without sub-netting, how many hosts are available at most?

A.1024

B.65025

C.254

D.48

17. (Single Choice) The function of network number in IP address is ( )

A.Specify the network to which hosts belong

B.Identify the host in the network

C.Specify the network by which devices can communicate with each other

D.Specify the network node which belongs to subnet address

18. (Single Choice) Which of the following multicast address represents all routers and hosts of the subnet?

A.224.0.0.1

B.224.0.0.2

C.224.0.0.3

D.224.0.0.9

19. (Single Choice) Which of the following multicast address represents all routers of the subnet?

A.224.0.0.1

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B.224.0.0.2

C.224.0.0.3

D.224.0.0.9

20. (Single Choice) An IP address whose network portion and host portion are all zero represents ( )

A.Network address

B.Broadcast address of the specified network segment

C.All networks

D.Broadcast address of all the network nodes

21. (Single Choice) Which class does IP address 190.233.27.13 belong to?

A.A

B.B

C.C

D.D

22. (Single Choice) The network address of the IP 190.233.27.13/16 is ( )

A.190.0.0.0

B.190.233.0.0

C.190.233.27.0

D.190.233.27.1

23. (Single Choice) Which of the following class address are multicast address ?

A.Class A

B.Class B

C.Class D

D.Class E

24. (Single Choice) The default mask length of the IP address 219.25.23.56 is ( )

A.8

B.16

C.24

D.32

25. (Multiple Choice) Which part of the IP address is used for sub-netting?

A.Network address

B.Host address

C.Subnet network segment

D.Default subnet mask

26. (Single Choice) For a class B address, how many bits at most can be used for sub-netting?

A.8

B.14

C.16

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D.22

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

A.4

B.5

C.9

D.12

28. (Single Choice) For a class C IP address, how many bits at most can be used for sub-netting?

A.6

B.8

C.12

D.14

29. (Single Choice) How many hosts are available in the network 154.27.0.0 without sub-netting?

A.254

B.1024

C.65,534

D.16,777,206

30. (Single Choice) What is the abbreviation of VLSM?

A.Variable Length Subnet Masking

B.Variable Length Shortest Masking

C.Very Long/Shortest Masking

D.Variable Long Subnet Masking

31. (Single Choice) How many hosts are available for the network segment 192.168.2.16/28?

A.16

B.8

C.15

D.14

E.7

32. (Single Choice) What is the binary format for subnet mask 255.255.192.0?

A.11111111 11110000 00000000 00000000

B.11111111 11111111 00001111 00000000

C.11111111 11111111 11000000 00000000

D.11111111 11111111 11111111 00000000

33. (Single Choice) What is the decimal value for binary 11001011?

A.171

B.193

C.203

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D.207

34. (Multiple Choice) Which of the following route entries can be aggregate into 10.0.0.24/29? (Select 2 Answers)

A.10.0.0.25/30

B.10.0.0.23/30

C.10.0.0.26/30

D.10.0.0.22/30

35. (Single Choice) IP addresses are layer-specific. A Layer 3 network device does not necessarily store the IP address of every host; instead, it stores the IP address of each network segment. This reduces the entries in a routing table to a great extent while improving routing flexibility.

T.True

F.Flase

36. (Multiple Choice) An IPv4 address consists of 32 bits and is generally expressed in dotted decimal notation, for example, 11.110.96.132. Such an IP address can also be expressed in other notations. Which are they? (Select 2 Answers)

A.00001011.01101110.01100000.10000100

B.0b.6e.60.84

C.0.b.6.e.6.0.8.4

D.0.1011.0110.1110.0110.0.1000.0100

37. (Single Choice) In one IP address, the network part is constant and the host part consists of all 1s. What does this IP address stand for?

A.Network address

B.Broadcast address of a specific network segment

C.All the networks

D.Broadcast addresses of all the nodes in the specified network

38. (Single Choice) When the host field of an IP address contains n bits, how many host addresses are available in this network?

A.2n-1

B.2n-2

C.2n-1

D.2n

39. (Single Choice) 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.101

B.100

C.110

D.10

40. (Single Choice) Which of the following represents the subnet mask of the 192.168.1.7/28 IP address?

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A.255.255.255.240

B.255.255.255.248

C.255.255.255.224

D.255.255.255.252

41. (Single Choice) Which of the following represents the network IP address corresponding to the 192.168.1.7/28 IP address?

A.192.168.1.0

B.192.168.1.4

C.192.168.1.6

D.192.168.1.7

42. (Multiple Choice) Which of the following statements regarding the address space of IP sub-network are true? (Select 2 Answers)

A.Address space of sub-network must meet the practical requirements. At the same time, redundancy is needed to ensure the extensibility

B.Since IP address borrowing method can be used to preserve IP address, the size of the sub-network required may be smaller than actual requirement.

C.The size of the sub-network should be integral power of two make it easier for the implementation of various policies.

D.All of the statements above are correct but none of them can be used in actual network implementation.

43. (Single Choice) Which of the following is a valid IP host address?

A.127.2.3.5

B.1.255.255.2/24

C.225.23.200.9

D.192.240.150.255/24

44. (Single Choice) According to the OSI reference model, network layer address consistes of ?

A.Network address and host address

B.Host address and network mask

C.Network address and network mask

D.Host address and host number

45. (Single Choice) Which of the following statements about IP host address is true?

A.Host portion can be either all one or all zero

B.Network portion can be either all one or all zero

C.Network portion can be neither all one nor all zero

D.IP host address can be either all one or all zero

46. (Single Choice) Which of the following is the correct host IP address?

A.224.0.0.5/24

B.127.32.5.62/8

C.202.112.5.0/24

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D.162.111.111.111/16

47. (Single Choice) Which of the following situations would employ dedicated host address as the source IP and destination IP for the data packets?

A.Broadcast

B.Multicast

C.Unicast

D.Directcast

48. (Single Choice) The subnet mask of the network segment 175.25.8.0/19 is ( )

A.255.255.0.0

B.255.255.224.0

C.255.255.24.0

D.The subnet mask varies according to the class of IP address

49. (Single Choice) The default subnet mask of the class D IP address is ( ) bits.

A.8

B.16

C.24

D.Class D address does not have the subnet mask

50. (Single Choice) 172.16.10.32/24 is ( )

A.Network address

B.Host address

C.Multicast address

D.Broadcast address

51. (Single Choice) The mask of a class C subnet is 255.255.255.224. How many bits are available for sub-netting? How many subnets are available? How many hosts are available for each subnet?

A.2, 2, 62

B.3, 8, 30

C.4, 14, 14

D.5, 30, 6

52. (Single Choice) What's the broadcast address for host address 101.11.100.100/22?

A.10.1.128.255

B.10.1.63.255

C.10.1.127.255

D.10.1.126.255

53. (Single Choice) What's the broadcast address for host address 101.11.100.100/22?

A.101.11.100.255

B.101.11.101.255

C.101.11.103.255

D.101.255.255.255

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54. (Single Choice) What's the broadcast address for network segment 201.1.0.0/21?

A.201.1.7.255

B.201.1.0.255

C.201.1.1.255

D.201.0.0.255

55. (Single Choice) Which of the following is the most appropriate aggregation for network segments 172.128.12.0, 172.128.17.0, 172.128.18.0, and 172.128.19.0?

A.172.128.0.0/21

B.172.128.0.0/19

C.172.128.12.0/22

D.172.128.20.0/20

56. (Single Choice) Which of the following aggregation by CIDR technology is correct?

A.192.168.1.0-192.168.15.0 can be aggregated to 192.168.0.0/19

B.192.168.1.0-192.168.15.0 can be aggregated to 192.168.0.0/20

C.192.168.1.0-192.168.15.0 can be aggregated to 192.168.0.0/21

D.192.168.1.0-192.168.15.0 can be aggregated to 192.168.0.0/22

57. (Single Choice) Which of the following is the most appropriate aggregation for network segments 172.168.16.0, 172.168.17.0, 172.168.18.0, and 172.168.19.0?

A.172.168.16.0/21

B.172.168.17.0/21

C.172.168.16.0/22

D.172.168.20.0/20

58. (Multiple Choice) Which address categories does the 220.32.59.31/27 IP address belong to? (Select 2 Answers)

A.Class C address

B.Broadcast address in a specific network segment

C.Invalid address

D.Private address

59. (Single Choice) When the subnet mask of a network is 255.240.0.0, which of the following is a valid Class A host address?

A.12.32.59.160

B.129.32.59.17

C.158.32.59.64

D.220.32.59.128

60. (Single Choice) When a Class C subnet mask is 255.255.255.192, how many subnets does this network consist of and how many hosts does each subnet consist of?

A.4, 62

B.8, 62

C.16, 14

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D.32, 14

61. (Single Choice) For a class B network, if 5 bits are used for sub-netting, how many hosts are available in a “single” subnet?

A.510

B.512

C.1022

D.2046

62. (Single Choice) A class C network is divided into 9 subnets in which 16 hosts at most are available for each subnet. Which of the following is an appropriate subnet mask?

A.255.255.224.0

B.255.255.255.224

C.255.255.255.240

D.No appropriate subnet mask is available

63. (Single Choice) What is the numerically nearest subnet for the network 172.168.16.0 with mask 255.255.252.0?

A.172.168.20.0

B.172.168.24.0

C.172.168.32.0

D.172.168.48.0

64. (Single Choice) For an IP address 192.168.12.43, its mask is 255.255.255.128, its network address is ( ), and its broadcast address is ( )

A.192.168.12.32 192.168.12.127

B.192.168.0.0 255.255.255.255

C.192.168.12.43 255.255.255.128

D.192.169.12.128 255.255.255.128

E.192.168.12.0 192.168.12.127

65. (Single Choice) For a class B IP network 172.16.0.0, its mask is 255.255.255.192. How many subnets are available and how many hosts are available for each subnet?

A.512, 126

B.1022, 62

C.1024, 62

D.256, 254

E.192, 254

66. (Single Choice) What are the network address and the broadcast address for the network segment that the IP address 190.5.4.2/22 belongs to?

A.190.5.4.0, 190.5.7.255

B.190.5.4.0, 255.255.255.255

C.190.5.0.0, 190.5.4.255

D.190.5.4.0, 190.5.4.255

67. (Single Choice) Which of the following is valid host IP address?

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A.192.168.2.15/28

B.10.0.2.128/26

C.122.245.264.13/26

D.12.3.4.6/24

E.224.0.4.5

68. (Single Choice) What's the network address and broadcast address for IP 190.5.6.1/22?

A.190.5.4.0, 190.5.7.255

B.190.5.4.0, 190.5.4.255

C.190.5.4.0, 190.5.4.254

D.190.5.1.0, 190.5.1.255

69. (Multiple Choice) For an IP address 10.110.53.233, if its mask length is the same with that of the following items, which items are in the same network segment with 10.110.53.233? (Select 2 Answers)

A.10.110.48.10 mask 255.255.248.0

B.10.110.43.10 mask 255.255.0.0

C.10.110.43.10 mask 255.255.248.0

D.10.110.48.10 mask 255.255.252.0

70. (Single Choice) Which of the following host IP address is within the same network segment with 10.110.12.29 /27?

A.10.110.12.0

B.10.110.12.30

C.10.110.12.31

D.10.110.12.32

71. (Multiple Choice) Which of the following statements regarding the IP address 192.168.16.255/20 are correct? (Select 2 Answers)

A.It's a broadcast address

B.It's a network address

C.It's a private address

D.It belongs to the network segment 192.168.19.0

E.It belongs to the network segment 192.168.16.0

F. It's a public address

72. (Single Choice) In a Class C network, after you add three digits in the default subnet mask to divide the network into different subnets, how many hosts does each subnet allow for?

A.62

B.30

C.14

D.6

73. (Single Choice) When the IP address is 199.32.59.64 and the subnet mask is 255.255.255.224, which of the following represents the IP address of the network segment?

A.199.32.59.64

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B.199.32.59.65

C.199.32.59.192

D.199.32.59.224

74. (Single Choice) The IP address of a network is 12.28.75.160. After the network is divided into different subnets, the subnet mask is 255.255.252.0. In this case, which of the following represents the subnet broadcast address?

A.12.28.255.255

B.12.28.69.255

C.12.28.75.255

D.12.255.255.255

75. (Single Choice) The IP address of a network is 129.32.59.17. After the network is divided into different subnets, the subnet mask is 255.255.254.0. In this case, how many subnets are available?

A.256

B.128

C.64

D.32

76. (Single Choice) When an IP address is 220.32.59.128/25, which of the following represents the network address?

A.220.32.59.192

B.220.32.59.128

C.220.32.59.254

D.220.32.59.0

77. (Single Choice) Which layer is used to implement internal communication of a same IP network segment in an IP network?

A.Physical Layer

B.Layer 2

C.Layer 3

D.Application Layer

78. (Single Choice) Which address of an Ethernet frame is used by a Layer 3 switch to determine whether to perform Layer 2 forwarding or Layer 3 forwarding?

A.Destination MAC address

B.Source MAC address

C.Destination IP address

D.Source IP address

79. (Multiple Choice) Which of the following statements about the key features of a Layer 3 switch are true? (Select 3 Answers)

A.A Layer 3 switch provides Layer 3 functions while providing Layer 2 functions.

B.Many Layer 3 switches provide exact search and perform Layer 3 forwarding based on Layer 3 functions.

C.All Layer 3 switches provide only ATM port.

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D.Some high-end Layer 3 switches provide high-speed POS ports to improve the upstream link efficiency.

4.2 Reference Answer

1. ACD	2.ABC		3.C	4.B	5.CD	6.B	7.AD	8.B
9.B	10.B	11.C	12.A	13.D	14.A	15.C	16.C	17.A
18.A	19.B	20.C	21.B	22.B	23.C	24.C	25B．	26.B
27.D	28.A	29.C	30.A	31.D	32.C	33.C	34.AC	35.T
36.AB	37.B	38.B	39.C	40.A	41.A	42.AC	43.B	44.A
45.C	46.D	47.C	48.B	49.D	50.B	51.B	52.C	53.C
54.A	55.B	56.B	57.C	58.AB	59.A	60.A	61.D	62.D
63.A	64.E	65.C	66.A	67.D	68.A	69.AB	70.B	71.CE
72.B	73.A	74.C	75.B	76.B	77.B	78.A	79.ABD	

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5 Internet Control Message Protocol

5.1 Question

1. (Single Choice) Which of the following protocols provides error report and send information about the IP datagram processing status back to the source?

A.TCP

B.UDP

C.ICMP

D.IGMP

2. (Single Choice) Which of the following protocols is a management protocol used at Network Layer to provide IP information service by embedding the protocol information in IP packets?

A.ARP

B.IP

C.ICMP

D.802.2

3. (Single Choice) Which of the following is the abbreviation for ICMP?

A.Internal Control Mail Protocol

B.Intranet Control Message Protocol

C.internet connection Message Protocol

D.Internet Control Message Protocol

4. (Multiple Choice) The protocol number of ICMP is ( )

A.1

B.6

C.17

D.22

5. (Single Choice) Which of the following operations can be used to verify the failure of installation or running of TCP/IP protocol?

A.Ping 10.1.1.1

B.Ping 127.0.0.1

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C.Ping 169.254.1.1

D.Ping 192.168.1.1

6. (Single Choice) Which of the following applications can be used to detect the path along which the data packets are transmitted from the source to the destination?

A.Route

B.Nestat

C.Tracert

D.Send

7. (Single Choice) The ICMP protocol (RFC792) is not applied to Application Layer but Network Layer.

T.True

F.Flase

8. (Single Choice) Which bytes in an ICMP packet use a unified format and consist of the Type, Code, and Checksum fields?

A.First 3 bytes

B.First 4 bytes

C.First 5 bytes

D.First 8 bytes

9. (Single Choice) Which of the following statements about the ICMP protocol is true?

A.The ICMP protocol searches for IP addresses based on MAC addresses.

B.The ICMP protocol translates the IP address of a public network into the IP address of a private network.

C.The ICMP protocol monitors errors generated in datagram transmission.

D.The ICMP protocol allocates and manages IP addresses in a network in a uniform manner.

10. (Single Choice) In which type of packet is an ICMP packet generally advertised during IP packet processing?

A.Delay

B.Error

C.Jitter

D.Source IP address

11. (Single Choice) Which of the following fields is used to check an ICMP packet?

A.Checksum field in the ICMP packet

B.Header checksum field in an IP datagram

C.Code field in the ICMP packet

D.Type field in the ICMP packet

12. (Single Choice) The IP protocol is a kind of unreliable protocol and offers no error detection. To provide error detection, which of the following must the IP protocol work with?

A.ARP

B.ICMP

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C.TCP

D.UDP

13. (Multiple Choice) Which of the following applications use ICMP protocol? (Select 3 Answers)

A.Ping

B.Tracert

C.Igmp

D.Arp

14. (Single Choice) When certain fields in the header of a received datagram have incorrect values, this datagram is discarded and a certain ICMP packet is sent to the source. Which type of ICMP packet is sent to the source?

A.Destination Unreachable packet

B.Source Quench packet

C.Parameter Problem packet

D.Redirect packet

15. (Single Choice) When a router or host discards data because of data congestion, which type of ICMP packet does the router or host send to the source?

A.Destination Unreachable packet

B.Source Quench packet

C.Parameter Problem packet

D.Redirect packet

16. (Single Choice) Which of the following is the most common method used to check the connectivity between an IP network and a host, for example, the connectivity between routers and the connectivity between a router and a host?

A.DNS

B.FTP

C.PING

D.TFTP

17. (Single Choice) A series of packets are used in a Ping test to determine whether delay and packet loss occur in communication. Which of the following represents the packet used in a Ping test?

A.FTP

B.Tracert

C.ICMP

D.Telnet

18. (Multiple Choice) Which of the following protocols are not used in a Tracert process? (Select 2 Answers)

A.TCP

B.UDP

C.ICMP

D.ARP

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19. (Multiple Choice) Which of the following statements about Ping and Tracert are true? (Select 3 Answers)

A.Both Ping and Tracert can be used to test network connectivity.

B.Ping can be used to specify the source IP address of a packet.

C.Ping is often used to obtain the path for forwarding a datagram.

D.Tracert can be used to determine a faulty point.

20. (Single Choice) Which type of packet does a Ping application send?

A.TCP Request packet

B.TCP Reply packet

C.ICMP Request packet

D.ICMP Reply packet

21. (Single Choice) The Tracert application is usually used in data network commissioning. In this case, how many types of ICMP packets are involved in a Tracert application?

A.2

B.3

C.4

D.6

5.2 Reference Answer

1. C	2.C	3.D	4.A	5.B	6.C	7.T	8.B	9.C
10.B	11.A	12.C	13.ABD	14.C	15.B	16.C	17.C	
18.AD	19.ABD	20.C	21.A					

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6 Address Resolution Protocol

6.1 Question

1. (Single Choice) 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.Low-speed serial connection

B.Circuit switching

C.Packet switching

D.MPLS forwarding

2. (Single Choice) What is the function of ARP?

A.Map port number to IP address

B.Map MAC address to IP address

C.Broadcast IP address

D.Map IP address to Mac address

3. (Single Choice) What is the function of RARP?

A.Map source IP address to MAC address

B.Map destination IP address to MAC address

C.Map destination MAC address to IP address

D.Map source MAC address to IP address

4. (Single Choice) Which category does the ARP protocol belong to?

A.Unicast

B.Multicast

C.Anycast

D.Broadcast

5. (Single Choice) An RARP request packet is sent by means of broadcast. How is an RARP Reply packet sent to save network resources?

A.Unicast

B.Multicast

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C.Anycast

D.Broadcast

6.2 Reference Answer

1. C 2.D 3.D 4.D 5.A

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7 Transport Layer Protocols

7.1 Question

1. (Single Choice) Which of the following protocols provides connection oriented transmission service?

A.IP

B.IPv6

C.TCP

D.UDP

2. (Multiple Choice) Which of the following protocols reside at transport layer? (Select 2 Answers)

A.IP

B.TCP

C.UDP

D.SNMP

3 (Single Choice) What is the port number of DNS?

A.21

B.23

C.53

D.80

4. (Single Choice) Which of the following is the correct sequence about the data encapsulation process?

A.Segment->Packet->Frame->Bit->Data

B.Bit ->Segment ->Packet->Frame->Data

C.Data->Packet->Segment ->Frame->Bit

D.Data->Segment->Packet->Frame->Bit

5. (Single Choice) Which of the following is the function of session layer?

A.Provide encryption and decryption

B.Provide data transformation and data format

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C.Establish connection between hosts

D.Establish maintain and terminate session

6. (Single Choice) Compared with OSI reference model, which of the following is not defined in TCP/IP protocol stack?

A.Data link layer and network layer

B.Network layer and transport layer

C.Session layer and presentation layer

D.Transport layer and session layer

7. (Single Choice) RPC, NFS and SQL protocols reside at the ( ) of the OSI reference model.

A.Network layer

B.Transport layer

C.Session layer

D.Presentation layer

8. (Multiple Choice) According to OSI reference model, which of the following functions belong to presentation layer? (Select 3 Answers)

A.Data encryption

B.Data compression

C.Session control

D.Data format transformation

9. (Single Choice) In the OSI reference model, one layer processes requests and responses initiated by applications of different devices. Which of the following layers stands for this layer?

A.Data Link Layer

B.Session Layer

C.Network Layer

D.Application Layer

10. (Single Choice) In the OSI reference model, one layer provides network services through applications in addition to communications between different applications. Which of the following layers

A.Data Link Layer

B.Session Layer

C.Network Layer

D.Application Layer

11. (Single Choice) Similar to the OSI reference model, the TCP/IP model also contains several layers. How many layers does the TCP/IP model contain?

A.Four

B.Five

C.Six

D.Seven

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12. (Multiple Choice) Which of the following are the functions of transport layer? (Select 4 Answers)

A.Segment upper layer data

B.Establish end to end connection

C.Transmit data from one host to another host

D.Ensure ordered, reliable, and correct transmission

E.addressing

13. (Single Choice) According to OSI reference model, when receiver can not process more data, which layer is responsible for sending stop message to the transmitter?

A.Physical layer

B.Transport layer

C.Session layer

D.Presentation layer

14. (Single Choice) Which protocol does an application (such as SNMP or RADIUS) that focuses on transmission efficiency use at Transport Layer?

A.TCP

B.UDP

C.ICMP

D.HDLC

15. (Single Choice) Which of the following protocols provides a reliability mechanism and can be used as a transport-level protocol?

A.TCP

B.UDP

C.ICMP

D.HDLC

16. (Single Choice) Which of the following protocols is a transport-level protocol based on TCP, translates a domain name into an IP address, and manages domain names in a distributed manner?

A.TCP

B.UDP

C.DNS

D.HTTP

17. (Single Choice) Which of the following protocols is used to transfer Web pages in the Internet?

A.TCP

B.UDP

C.DNS

D.HTTP

18. (Multiple Choice) Which protocols are defined by the TCP/IP model to transmit and receive mails? (Select 2 Answers)

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A.SMTP

B.POP3

C.DNS

D.HTTP

19. (Single Choice) Which of the following protocols authenticates a user remotely, authorizes the user access, and performs charging?

A.SMTP

B.RADIUS

C.DNS

D.HTTP

20. (Multiple Choice) TCP is a connection oriented and reliable transport layer protocol. Which of the following are used to ensure the transmission reliability? (Select 2 Answers)

A.Acknowledgement

B.Buffering

C.Source quench messages

D.Retransmit

21. (Single Choice) A TCP packet consists of a maximum of 60 bytes. How many bytes does a TCP packet header consist of after the Option field is deducted?

A.8

B.20

C.30

D.40

22. (Single Choice) The TCP protocol assigns a source port No. to each application. How many bytes does the source port No. in the TCP packet header consist of?

A.1

B.2

C.4

D.8

23. (Multiple Choice) Which of the following fields are contained in a TCP packet header? (Select 3 Answers)

A.Source Port

B.Destination Port

C.Sequence Number

D.CRC32

24. (Single Choice) Which of the following ranges represents the size of a maximum transfer unit (MTU) packet?

A.64–1518

B.60–1518

C.64–1480

D.60–1480

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25. (Single Choice) The TTL field in an IP header specifies the number of routers that a datagram is allowed to traverse. After the datagram traverses a router, the TTL value is deducted by 1. When the TTL reaches a certain value, the datagram is discarded. Which of the following represents this value?

A.Sender

B.Receiver

C.Harddisk

D.Message

E.Protocol

26. (Single Choice) Defragmentation can occur at either the original transmitter or an intermediate router. Where is an IP datagram is reassembled after it is defragmented?

A.In the process in which the packet is looped back

B.On the next router

C.On an intermediate router

D.At the destination of the packet

27. (Multiple Choice) Which of the following statements about TCP connection establishment are true? (Select 2 Answers)

A.A TCP connection is established after three-way handshake is done.

B.Three-way handshake can resolve the delay problem with packet data transmission.

C.The three-way handshake helps guarantee the reliability of data switching.

D.The three-way handshake cannot guarantee the security of data switching.

28. (Single Choice) Tracert is an application based on application layer, which transport layer protocol is used by Tracert?

A.ICMP

B.ARP

C.TCP

D.UDP

29. (Single Choice) What is the main function of DNS?

A.Domain Name Resolution

B.Remote Access

C.File Transfer

D.Mail Transfer

30. (Single Choice) Which of the following is the default TCP port number used by HTTP?

A.80

B.8080

C.110

D.25

31. (Single Choice) Which protocol does FTP use to provide reliable data transmission?

A.RTP

B.SIP

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C.UDP

D.TCP

32. (Single Choice) Which of the following protocols is used to send email on the internet?

A.SMTP

B.MSTP

C.FTP

D.TFTP

33. (Single Choice) Which TCP port number is used by SMTP by default to send e-mail message?

A.21

B.23

C.25

D.53

34. (Single Choice) POP (Post Office Protocol) is used for receiving E-mail. Which TCP port numbers does it use by default?

A.110

B.53

C.21

D.23

7.2 Reference Answer

1. C	2.BC	3.C	4.D	5.D	6.C	7.C	8.ABD	9.B
10.D	11.A	12.ABCD	13.B	14.B	15.A	16.C	17.D	18.AB
19.B	20.AD	21.B	22.B	23.ABC	24.A	25.A	26.D	27.AC
28.D	29.A	30.A	31.D	32.A	33.C	34.A		

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8 Data Forwarding Scenario

8.1 Question

1. (Single Choice) In data communications, the data format must be determined and agreed by the information creator and the information receiver before the data is transmitted.

T.True

F.False

8.2 Reference Answer

1.T

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9 Expanding the Huawei Enterprise Network

9.1 Question

1. (Multiple Choice) Which of the following products use the VRP platform as the core engine of their software? (Select 3 Answers)

A.Router

B.Ethernet switch

C.Service gateway

D.LTE

2. (Single Choice) VRP uses a component-based system architecture. It provides various functions and features in addition to application-based scalability and customization.

T.True

F.False

3. (Multiple Choice) What functions does VRP provide? (Select 3 Answers)

A.Provides a unified user interface and a unified management window.

B.Provides the functions of a control plane.

C.Defines interfaces of a forwarding plane.

D.Blocks communication between a forwarding plane and the VRP control plane.

4. (Single Choice) Which component of the VRP platform provides user authentication charging and user policy management?

A.Service control plane

B.Versatile control plane

C.System management plane

D.None of the above

5. (Multiple Choice) Which of the following methods can be used to upgrade the VRP software? (Select 3 Answers)

A.WEB

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B.FTP

C.TFTP

D.X-modem

6. (Single Choice) When VRP platform is configured as TFTP client, it can transmit files in binary mode and ASCII mode.

T.True

F.False

7. (Multiple Choice) Which of the following protocols can be used to upgrade VRP? (Select 3 Answers)

A.FTP

B.TFTP

C.TELNET

D.XMODEM

8. (Multiple Choice) Which of the following is abbreviation of VRP?

A.Versatile Routine Platform

B.Virtual Routing Platform

C.Virtual Routing Plane

D.Versatile Routing Platform

9.2 Reference Answer

1. ABC 2.T 3.ABC 4.A 5.BCD 6.F 7.ABD

8.D

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10 Navigating The CLI

10.1 Question

1. (Multiple Choice) On Huawei VRP platform, which of the following can be used to invoke the history command saved by the command line interface?

A. Up cursor key < ↑ >
B. Left cursor key < ← >
C. Ctrl+P
D. Ctrl+U

2. (Single Choice) Which of the following commands is used to enter the system-view from the user view on a Huawei router?

A. system-view
B. enable
C. configure terminal
D. interface system

3. (Single Choice) On VRP platform, the command lines are classified into four levels in increasing priority: Visit level, Monitoring level, Configuration level, and Management level. At which level, the operator is permitted to configure service but is not permitted to operate the file system?

A.Visit level
B.Monitoring level
C.Configuration level
D.Management level

4. (Single Choice) Which of the following statements about the command view of VRP are true?

A.The System-view command can switch a view from the user view to the system view.
B.A service command can switch a view from the system view to the corresponding service view.
C.The Quit command can switch a view from the system view to the user view.
D.Different views may have different commands.

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5. (Single Choice) Which of the following must be used to establish the configuration environment when a router is powered on for the first time?

A.SSL

B.SSH

C.Console port

D.Telnet

6. (Single Choice) Which of the following parameter settings for terminal emulation are correct when configuring a Huawei router through the Console port?

A. 4800bps, 8 data bits,1 stop bits, odd parity check, and no flow control

B. 9600bps, 8 data bits, 1 stop bits, no parity check, and no flow control

C. 9600bps, 8 data bits, 1 stop bits, even parity check, and hardware flow control

D. 19200bps, 8 data bits, 1 stop bits, no parity check, and no flow control

10.2 Reference Answer

1. AC 2.A 3.C 4.ABCD 5.C 6.B

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11 File System Navigation and Management

11.1 Question

1. (Single Choice) Which of the following commands can be used to view the current configurations on a Quidway router?

A. display current-configuration
B. display saved-configuration
C. view saved-configuration
D. show startup- configuration

2. (Multiple Choice) Which of the following storage devices are supported by Huawei Quidway router?

A. SDRAM
B. NVRAM
C. Flash
D. Hard Disk
E. CF Card

3. (Single Choice) Which of the following storage devices is used to store the startup configuration files in a router?

A. SDRAM
B. NVRAM
C. Flash
D. BootROM

4. (Single Choice) The operation deleting the configuration files saved in the storage devices will become effective after rebooting the router.

T.True
F.False

5. (Single Choice) On VRP platform, the command lines are classified into four levels in increasing priority: Visit level, Monitoring level, Configuration level, and Management level.

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At which level, the operator is permitted to configure service but is not permitted to operate the file system?

A. Visit level

B. Monitoring level

C. Configuration level

D. Management level

6. (Single Choice) An adminstrator has been requested to replace the configuration file of a router in the network. The administrator has been instructed that after logging into the router, he must first permenantly erase the current configuration file config.zip from the system. Which command should he use to achieve this?

A. delete /force config.zip

B. delete /unreserved config.zip

C. reset config.zip

D. clear config.zip

11.2 Reference Answer

1.A 2.ABCE 3.B 4.T 5.C 6.B

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12 VRP Operating System Image Management

12.1 Question

1. (Multiple Choice) Which of the following products use the VRP platform as the core engine of their software?

A. Router
B. Ethernet switch
C. Service gateway
D. LTE

2. (Single Choice) VRP uses a component-based system architecture. It provides various functions and features in addition to application-based scalability and customization.

T.True
F.False

3. (Multiple Choice) What functions does VRP provide?

A. Provides a unified user interface and a unified management window.
B. Provides the functions of a control plane.
C. Defines interfaces of a forwarding plane.
D. Blocks communication between a forwarding plane and the VRP control plane.

4. (Multiple Choice) Which component of the VRP platform provides user authentication charging and user policy management?

A. Service control plane
B. Versatile control plane
C. System management plane
D. None of the above

5. (Single Choice) On VRP platform, the command lines are classified into four levels in increasing priority: Visit level, Monitoring level, Configuration level, and Management level. At which level, the operator is permitted to configure service but is not permitted to operate the file system?

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A. Visit level
B. Monitoring level
C. Configuration level
D. Management level

6. (Single Choice) <Huawei>display startup

MainBoard:

Startup system software: sd1:/ar2220-v200r003c00spc200.cc
Next startup system software: sd1:/ar2220-v200r003c00spc200.cc
Backup system software for next startup: null
Startup saved-configuration file: null
Next startup saved-configuration file: null
Startup license file: null
Next startup license file: null
Startup patch package: null
Next startup patch package: null
Startup voice-files: null
Next startup voice-files: null

Refer to the display output. Which statement is false?

A. The current configuration file has not been saved.
B. The current startup system software is ar2220-v200r003c00spc200.cc
C. The next startup system software cannot be changed.
D. The next startup system software can be changed by using the "startup system software <startup-software-name>.cc

12.2 Reference Answer

1.ABC 2.T 3.ABC 4.A 5.C 6.C

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13 Establishing a Single Switched Network

13.1 Question

1. (Single Choice) Which of the following must be used to establish the configuration environment when a router is powered on for the first time?

A. SSL
B. SSH
C. Console port
D. Telnet

2. (Single Choice) Workstation A and workstation B are respectively connected to two ports of a switch. Assume the MAC table of the switch is empty now. Which of the following statements is true as soon as the switch receives the first packet sent by Workstation A to Workstation B?

A.The switch will learn address of A
B.The switch will learn address of B
C.The switch will not learn any address
D.The switch will learn addresses of both A and B

3. (Single Choice) <Quidway>display mac-address

MAC Address VLAN/VSI Learned-From Type

5489-98ec-f018 1/- GE0/0/13 dynamic

Total items displayed = 1

Refer to the graphic. A switch attempts to forward a frame to the MAC destination 5489-98ec-f01. What operation will occur on the switch?

A. The switch will send a request to obtain the MAC address of 5489-98ec-f011.

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B. The switch will report that the destination is unreachable and report this to the source.

C. The switch will flood the frame via all ports, with exception of the port on which the frame was received.

D. The switch will drop the frame because it does not have an entry in its MAC address table

4. (Single Choice) A server is linked to port interface G0/0/1 of a switch. The administrator wishes to allow only this server to be linked to this interface on the switch. Which method can be used to achieve this?

A. Configure a static ARP entry using the server's IP address and MAC address in the switch.

B. Configure a static MAC address binding entry of the server's MAC address and the interface in the switch.

C. Configure the default gateway of the switch to be the same as the server's IP address.

D. It is not possible to enable a single device to be associated with an interface.

5. (Single Choice) An administrator connects two switches together in a local enterprise network. The ports of one switch support Fast Ethernet, while the ports of the other switch support Gigabit Ethernet. Hosts connected to one switch are able to communicate, however communication between the two switches fails. What is the possible reason for this?

A. The ports have disabled auto-negoatition.

B. One port is supporting auto-negotiation, while auto-negotiation is disabled on the port of the other switch.

C. The port of one switch is operating using half duplex mode, while the port of the other switch is using full duplex mode.

D. A Fast Ethernet port cannot communicate directly with a Gigabit Ethernet port.

13.2 Reference Answer

1.C 2.A 3.C 4.B 5.A

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14 Spanning Tree Protocol

14.1 Question

1. (Single Choice) STP is short for ?

A.Rapid spanning tree protocol

B.Shortest path tree protocol

C.Spanning tree protocol

D.Sharing tree protocol

2. (Single Choice) The standard for STP defined by IEEE is ( ).

A.802.3

B.802.11b

C.802.1D

D.802.1Q

3. (Single Choice) In OSI reference model, Layer 2 LAN switch operates at ( ).

A.Physical layer

B.Data link layer

C.Network layer

D.Application layer

4. (Single Choice) The main idea of STP is to generate a loop-free tree by exchanging a special kind of message between bridges. This message is called ( ).

A.Configuration BPDU

B.TCN BPDU

C.Hello BPDU

D.Update BPDU

5. (Multiple Choice) Which of the following are the interface states of STP? (Select 4 Answers)

A.Disabled

B.Blocking

C.Shut down

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D.Learning

E.Forwarding

6. (Single Choice) On Huawei switches running STP,the default value of forward delay is ( ) seconds.

A.10

B.15

C.20

D.30

7. (Single Choice) Which of the following descriptions about learning state in STP is incorrect?

A.The port in learning state can receive and send BPDU

B.The port in learning state can learn the source MAC address of data packet

C.The port in learning state can only learn the source MAC address but cannot transmit the data packet.

D.The port in learning state can forward part of the data packet

8. (Single Choice) Which of the following descriptions about blocking state in STP is incorrect?

A.The port in blocking state can receive BPDU

B.The port in blocking state does not learn source MAC address of data packet

C.The port in blocking state does not forward data packets

D.The port in blocking state does not receive any data packets

9. (Single Choice) STP uses ( ) timer to prevent from temporary loop when the link is fault?

A.Hello Time

B.Forward Delay

C.Max Age

D.Message Age

10. (Single Choice) Devices need to exchange information and parameters in order to calculate a spanning tree. Such information and parameters are encapsulated into a certain unit when they are exchanged between devices. Which type of unit are the information and parameters encapsulated into?

A.TCP BPDU

B.Configured BPDU

C.Configured STP

D.Configured RSTP

11. (Single Choice) How many root bridges does the STP protocol select from all the network bridges when calculating a spanning tree?

A.1

B.2

C.3

D.4

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12. (Single Choice) Which attribute is selection of a root bridge based on when the spanning tree is calculated by the STP?

A.Bridge ID

B.Path Cost

C.Port Cost

D.Port ID

13. (Single Choice) Root bridges provide root ports and designated ports.

T.True

F.False

14. (Single Choice) There may be “multiple” paths between a non-root bridge and a root bridge. Each of the paths has its own total cost, which is the sum of the port costs of all egress ports on the path.

T.True

F.False

15. (Single Choice) STP calculates the overall cost of each path between a non-root bridge and a root bridge. What is a port on the non-root bridge called on the path that has the minimum overall cost?

A.Designated port

B.Root port

C.Common port

D.Queue port

16. (Single Choice) In STP calculation, a port identifier consists of two parts: one-byte ( ) and one-byte port number.

A.Port priority

B.Link priority

C.Bridge MAC address

D.Port MAC address

17. (Multiple Choice) The existence of loop in switched network can lead to ( ).

A.Broadcast storm

B.Route self-loop

C.Destination unreachable

D.Unstable MAC address table

18. (Single Choice) Which of the following statements regarding layer-2 switch is incorrect?

A.Learn MAC address automatically

B.Layer-3 header is modified before the received packet is transmitted

C.Layer-2 header is modified before the received packet is transmitted.

D.Layer-2 LAN switch operates at data link layer

19. (Multiple Choice) Which of the following are the functions of STP in switched network?

A.Improve bridge network availability by providing physical path redundancy

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B.Improve bridge network availability by providing logical path redundancy

C.Eliminate the possible loops by blocking the redundant paths

D.Activate the redundant backup path when the active path becomes faulty.

20. (Multiple Choice) Which of the following descriptions about STP are incorrect?

A.A layer-2 switching network can have only one designated switch

B.All the ports of the root switch are root port

C.All the ports of the root switch are designated port

D.The switch with the smallest priority value is elected as non-root switch

21. (Multiple Choice) In STP, the bridge ID consists of two parts. They are ( ) and ( ).

A.Switch priority

B.Switch Port ID

C.Switch MAC address

D.Switch IP address

22. (Single Choice) In STP, what is the length of bridge ID?

A.8 bits

B.32 bits

C.48 bits

D.64 bits

23. (Single Choice) Which of the following descriptions about STP is incorrect?

A.STP can manage the redundant links

B.STP can block redundant links to eliminate loops

C.STP can prevent from temporary loss of connectivity

D.STP can make LAN switch operates normally in a switched network environment with loops

24. (Single Choice) Which of the following descriptions about port state transition of STP are incorrect?

A.Forwarding state can transit to Blocking state directly

B.Learning state can transit to Blocking state directly

C.Learning state can transit to Forwarding state directly

D.Blocking state can transit to Forwarding state directly

25. (Single Choice) During STP calculation, STP selects a designated port and bridge for each network segment. In this selection process, STP first compares ( ) of the port connected to the network segment and selects the one with the lowest number.

A.Link priority

B.Root path cost

C.Port identifier

D.Port MAC address

26. (Multiple Choice) Which of the following ports are defined by STP and indicate that Physical Layer and Data Link Layer are working normally and STP is enabled at ports on a device? (Select 3 Answers)

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A.Root Port

B.Designated Port

C.Alternate Port

D.Disable Port

27. (Single Choice) During STP calculation, when a port is in a certain state, it neither forwards any data frame nor learns MAC address tables. It takes part in only spanning tree calculation in addition to receiving and sending STP protocol packets. Which state does the abovementioned state refer to?

A.Listening

B.Blocking

C.Learning

D.Forwarding

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

A.Listening

B.Blocking

C.Learning

D.Forwarding

29. (Single Choice) Workstation A and workstation B are connected to two different switch ports respectively. Assume that workstation B hasn't sent any packet yet. Which of the following statements is true when workstation A starts sending the first packet to workstation B?

A.The destination port of workstation B is not found in switch's MAC table an the packet is discarded

B.The switch learns the address of workstation B and sends the packet to the port that is connected with B

C.The switch learns address of workstation A and broadcasts the packet out of all the ports

D.The switch learns address of workstation A and broadcasts the packet out of all the ports except for the port that received the packet

30. (Multiple Choice) Which of the following descriptions about STP are correct? (Select 3 Answers)

A.A network can have only one root switch

B.All the ports of the root switch are root port

C.All the ports of the root switch are designated port

D.The switch with the smallest priority value is elected as the root switch

31. (Multiple Choice) In STP, the role of switch port includes ( ) (Select 3 Answers)

A.Root port

B.Backup root port

C.Optional port

D.Alternate port

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E.Designated port

14.2 Reference Answer

1. C	2.C	3.B	4.A	5.ABDE	6.B	7.D	8.D	9.B
10.B	11.A	12.A	13.F	14.T	15.B	16.A	17.AD	18.B
19.ACD	20.ABD	21.AC	22.D	23.C	24.D	25.B	26.ABC	27.A
28.B	29.D	30.ACD	31.ADE					

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15 Rapid Spanning Tree Protocol

15.1 Question

1. (Multiple Choice) Which of the following are the advantages of RSTP compared with STP? (Select 3 Answers)

A.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.

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 the response.

D.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 the response.

2. (Multiple Choice) Which of the following are disadvantages of “single” spanning tree? (Select 3 Answers)

A.Hosts belong to the same VLAN connected to different switches may not be able to communicate each other

B.Load balancing can not be implemented

C.Convergence is slow

D.Sub-optimal path may exist

3. (Single Choice) As specified by the RSTP protocol, when a designated port fails, which type of port will function as a new designated port and enters the forwarding state without any delay?

A.Forwarding Port

B.Alternate Port

C.Backup Port

D.Edge Port

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4. (Single Choice) As specified by the RSTP protocol, when a root port fails, which type of port will function as a new root port and enters the forwarding state without any delay?

A.Forwarding Port

B.Alternate Port

C.Backup Port

D.Edge Port

5. (Single Choice) In the RSTP standard, a port is able to connect to a terminal directly and enter the forwarding state without delay. Which of the following ports represents such a port?

A. Fast port

B. Backup port

C. Root port

D. Edge port

15.2 Reference Answer

1. ABD 2.ABD 3.C 4.B 5.D

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16 Segmenting the IP Network

16.1 Question

1. (Single Choice) IGP is the protocol which is used in ( )

A.An area

B.A LAN

C.An Autonomous System

D.Within the range of classful addressl

2. (Single Choice) Which of the following statements regarding routing protocol is correct?

A.A protocol that allows the data packets transmitted between hosts.

B.A method that defines the format and function of the fields for data packet

C.A protocol that achieves route selection through an algorithm

D.A protocol that defines the mode and time of the binding of MAC address and IP address

3. (Multiple Choice) Which of the following statements regarding the function of a router are correct? (Select 3 Answers)

A.Connecting same networks.

B.Segmenting the packet so that the forwarding is easier

C.Forwarding the packet from one network to another

D.Addressing

4. (Multiple Choice) Which of the following statements regarding the routing table are correct? (Select 2 Answers)

A.The next hop in the routing table is redundant because the outgoing interface can be used for packet forwarding.

B.The routes from generated by different protocols have different preferences.

C.The costs of different routing protocols are comparable.

D.The costs of different routing protocols are not comparable

5. (Multiple Choice) Which of the following are the sources of the routes in the routing table? (Select 3 Answers)

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A.Some routes are generated during the startup of the router.

B.Some routes are generated according to the data link layer protocol

C.Some routes are configured manually by the administrator

D.Some routes are generated by dynamic routing protocols

6. (Multiple Choice) Which of the following items are used to select the best route when a router has “multiple” routes to the same destination? (Select 2 Answers)

A.Preference of the route

B.Advertiser of the route

C.Cost of the route

D.TTL of the route

7. (Multiple Choice) Which of the following protocols are routing protocols? (Select 2 Answers)

A.RIP

B.OSPF

C.PPP

D.IPX

8. (Multiple Choice) Which of the following statements regarding the route preference are correct? (Select 3 Answers)

A.It is used by RIP and OSPF only

B.It is used by all routing protocols

C.It is an important factor for route selection

D.The default preference value of direct route is 0

9. (Single Choice) What do we call the routes in the routing table that have the same cost to the same destination?

A.Equivalent routes

B.Sub-optimal routes

C.Multipath routes

D.Default routes

10. (Multiple Choice) According to the algorithms, routing protocols fall into two categories. They are ( ) (Select 2 Answers)

A.IGP

B.EGP

C.Distance Vector

D.Link-state

11. (Multiple Choice) Which of the following items are the contents of the routing table? (Select 2 Answers)

A.Destination

B.Cost, Interface, and Next hop

C.Node

D.Router

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12. (Single Choice) Each router forwards only the packets received by the local station through the optimal path. The packet is forwarded by different routers on the path in a relay mode.

T. True

F.False

13. (Multiple Choice) A routing table can be formed by using different methods. Which of the following protocols are used to form a routing table? (Select 2 Answers)

A.Static routing protocol

B.Dynamic routing protocol

C.Application-level protocol

D.Transport-level protocol

14. (Multiple Choice) What functions does a router mainly provide? (Select 3 Answers)

A.Check the destination address in a datagram.

B.Determine the information source.

C.Discover possible routes.

D.Verify and maintain route information.

15. (Multiple Choice) When the value of the proto field of a route in a routing table is direct, it indicates that this route is a ( ). (Select 3 Answers)

A.Route discovered by the protocol at the link layer

B.Port route

C.Direct route

D.Default route

16. (Multiple Choice) Which of the following statements are true? (Select 2 Answers)

A.A route discovered by a protocol at the link layer need not be maintained.

B.A protocol at the link layer can discover only a route to a loopback address.

C.A protocol at the link layer can discover only a route in a network segment connected directly to a port.

D.A protocol at the link layer can discover only a route across different network segments.

17. (Multiple Choice) Which of the following statements are correct? (Select 2 Answers)

A.The calculation method of the preference and cost in the routing table are same.

B.The calculation of cost may be based on “single” link attribute or several link attributes such as delay, hop count, bandwidth and etc.

C.When several dynamic routing protocols have the best routes to the same destination, all these routes will be added to the routing table.

D.Some of the dynamic routing protocols calculate the best path base on the cost value. However, Different routing protocol calculates the metric in different ways

18. (Multiple Choice) Which of the following statements are incorrect? (Select 2 Answers)

A.The preferences for each static routes entry can be different.

B.By default, OSPF is more preferred to RIP.

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C.The greater the cost, the better the route is.

D.For those routes to the same destination on VRP platform, the one with higher preference value is more preferred over the one with lower preference value.

19. (Multiple Choice) Which of the following factors may result in routing loops? (Select 3 Answers)

A.Temporary routing loops that occur during route convergence

B.Link-state routing protocol algorithms

C.Loop avoidance information is lost when the routes are imported between two different routing domains

D.Configuration errors

20. (Multiple Choice) Routing metric is a value that measures the cost of the route to the designated destination and it is used to calculate the best path. Which of the following factors can affect the metric of a route? (Select 3 Answers)

A.Delay/bandwidth

B.Line occupation ratio

C.CPU of the router

D.Hop count

21. (Single Choice) What does the distance vector routing protocol focus on according to the discovered routes and calculated routes?

A.The number of hops on between the router and the destination

B.The address of the next hop specified manually

C.Whether the egress port on the route belongs to a port aggregation group

D.Link bandwidth resource information

22. (Single Choice) Equal-cost routes are the routes that have the same ( ).

A.Cost

B.Priority

C.Egress port

D.Next hop

23. (Single Choice) Each router only knows how to forward the packet to the next hop IP address. It doesn't know the end to end forwarding path. This type of forwarding is called ( )

A.Hop by hop forwarding

B.Host by host forwarding

C.Router by router forwarding

D.Network by network forwarding

24. (Single Choice) Which of the following is used by routers to forward the packets on the network?

A.DNS lookups

B.ARP tables

C.Routing tables

D.MAC address tables

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25. (Single Choice) Which of the following statements regarding routing convergence is correct?

A.Convergence is a process that occurs due to network topology changes.

B.Convergence is a process of establishing neighbor relationships between any two routers by sending hello packets.

C.Convergence is a process of combining the routing tables of two routers.

D.Convergence is a process of synchronizing all routing tables for all the routers in the network. It is the process for a router to reach the stable and consistence state after the network changes.

26. (Single Choice) If the optimal path to the destination IP address is unavailable after a change occurs in a network topology, the dynamic routing protocol can make adaptation to this change and determine another optimal path to the destination IP address.

T.True

F.False

27. (Single Choice) The data link layer in a router receives a packet from upper layer and the length of the packet is greater than the MTU of the interface that will transmit this packet. What will the router do?

A.Discard the packet

B.Fragment the packet

C.requests the source router to reduce the length of the packet

D.Forward the packet directly

28. (Single Choice) Characterized by simple configuration and poor scalability, which of the following protocols is based on the Bellman-Ford algorithm and sends a complete routing table to an adjacent router at a certain interval?

A.Distance vector routing protocol

B.Link-state routing protocol

C.Interior gateway protocol

D.Exterior gateway protocol

29. (Multiple Choice) Which of the following statements regarding routing loops are correct? (Select 2 Answers)

A.Routing loops cause the packets not able to reach the destination and this will result in network congestion.

B.Route loops are generated by dynamic routing protocols only.

C.Packets are routed circularly between two or more routers and will be discarded when the TTL becomes 0.

D.Link state routing protocols will not cause the routing loops.

30. (Multiple Choice) Which of the following indicators are used to measure the performance of a dynamic routing protocol? (Select 2 Answers)

A.Zero routing loop

B.Low protocol cost

C.Number of subnets

D.Route priority

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31. (Multiple Choice) Which of the following statements regarding default route are correct? (Select 2 Answers)

A.Default route is more preferred over the specific route

B.Default route is used only when the destination route is not in the routing table

C.Default route can be configured manually.

D.Default route is a special type of dynamic route.

32. (Single Choice) Assume an internal network has only one route to the external networks, which of the following configurations is better?

A.Default route

B.Host route

C.Dynamic route

D.Direct route

33. (Single Choice) Suppose a gateway is configured in a host running Windows system, which of the following is similar to the configuration on a router?

A.Direct route

B.Default route

C.Dynamic route

D.Host route

16.2 Reference Answer

1. C	2.C	3.BCD	4.BD	5.BCD	6.AC	7.AB		
8.BCD	9.A	10.CD	11.AB	12.T	13.AB	14.ACD		
15.ABD	16.AC	17.BD	18.CD	19.ACD	20.ACD			
21.A	22.A	23.A	24.C	25.D	26.T	27.B	28.A	29.AC
30.AB	31.BC	32.A	33.B					

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17 IP Static Routes

17.1 Question

1. (Single Choice) After a fault occurs in a network, a static route can be rectified automatically and the network administrator does not need to reconfigure it.

T.True

F.False

2. (Single Choice) Which of the following values is the default preference value for static route on the VRP platform?

A.0

B.20

C.60

D.100

3. (Single Choice) A static route can be either configured manually by a network administrator or generated automatically.

T.True

F.False

4. (Multiple Choice) A command for configuring a static route contains the destination IP address and mask. In which notations can the mask be expressed? (Select 2 Answers)

A.Dotted decimal notation

B.Mask size (namely, the number of binary 1s in the mask)

C.Dotted binary notation

D.Dotted hexadecimal notation

5. (Multiple Choice) Compared to static routing protocol, which of the following are the advantages of dynamic routing protocol? (Select 2 Answers)

A.Low bandwidth consumption

B.Simple

C.The router running dynamic routing protocol can detect the changes of the network topology automatically.

D.The router running dynamic routing protocol can calculate the routes automatically.

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6. (Multiple Choice) Which of the following are the advantages of static routing protocol? (Select 2 Answers)

A.Simple configuration

B.Automatic routing updates

C.Enhanced network security

D.Save the bandwidth

7. (Multiple Choice) Which of the following are the disadvantages of using static routing protocol in the network? (Select 2 Answers)

A.The configurations are complicated in a large network.

B.Re-configurations are required after the topology changes

C.External routers can not learn the static route configuration which will result in network unreachability.

D.On the VRP platform, load balancing can not be implemented using static route

8. (Multiple Choice) Two static routes to the 10.1.1.1/32 network are configured on a router. One of the static routes is not assigned with a value for the preference_value parameter; the other static route is assigned with 100 for the preference_value parameter. In this case, which of the following statements are true? (Select 2 Answers)

A.The route not signed with a value for the preference_value parameter functions as the working route.

B.The route signed with 100 for the preference_value parameter functions as the working route.

C.A static route supports route backup.

D.The two static routes work in load sharing mode.

9. (Single Choice) The information about static routes can be viewed through a router. A backup route is identified as ( ).

A.Bypass

B.Inactive

C.Backup

D.Slave

10. (Multiple Choice) Which of the following statements regarding static route are correct? (Select 3 Answers)

A.Default route is a special type of dynamic route

B.Some of the dynamic routing protocol such as OSPF can generate default routes.

C.Default route is used when the destination network is not in the routing table.

D.The network IP and mask of the default route is 0.0.0.0 and 0.0.0.0 respectively.

11. (Multiple Choice) Which of the following statements about default routes are true? (Select 2 Answers)

A.A route that can be configured manually.

B.A default route can be only configured manually by a network administrator.

C.A default route is a kind of special static route.

D.A default route can be generated by using a dynamic routing protocol.

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12. (Single Choice) What does a router do after it receives a datagram containing a destination address that is not listed in the routing table?

A.The router matches an OSPF route with the destination address.

B.The router matches an RIP route with the destination address.

C.The router matches a BGP route with the destination address.

D.The router uses the default route.

13. (Single Choice) How is routing information about a default route expressed?

A.The destination IP address is expressed in all 0s and the mask is expressed in all 1s.

B.The destination IP address is expressed in all 1s and the mask is expressed in all 0s.

C.Both the destination IP address and mask are expressed in all 0s.

D.Both the destination IP address and mask are expressed in all 1s.

14. (Single Choice) How many routes at most does a default route on Huawei router support load sharing?

A.0

B.2

C.16

D.32

15. (Single Choice) After a change occurs in a network topology, which of the following routes does not change automatically but changes only after the network administrator updates the change?

A.RIP route

B.OSPF route

C.BGP route

D.Static route

17.2 Reference Answer

1. F	2.C	3.F	4.AB	5.CD	6.AD	7.AB	8.AC	9.B
10.BCD	11.AD	12.D	13.C	14.D	15.D			

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18 Distance Vector Routing with RIP

18.1 Question

1. (Single Choice) Which of the following routing protocols involves simple configuration and low-speed convergence and is generally used in medium- and small-sized networks?

A.BGP

B.OSPF

C.ISIS

D.RIP

2. (Multiple Choice) Router A runs RIP routing and its interface serial 0 with IP address 10.0.0.1/24 is enabled with RIP routing protocol as well. Which of the following commands must be configured? (Select 2 Answers)

A.Rip

B.Rip 10.0.0.0

C.Network 10.0.0.1

D.Network 10.0.0.0

3. (Single Choice) Which of the following parameters is used by RIP to calculate the value of cost?

A.MTU

B.Delay

C.Bandwidth

D.Hop count

4. (Multiple Choice) Which of the following statements regarding RIP are correct? (Select 2 Answers)

A.RIP is an IGP.

B.RIP is an EGP.

C.RIP is a distance vector routing protocol.

D.RIP is a link-state routing protocol.

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5. (Single Choice) Which of the following protocol is used by RIP to encapsulate the messages?

A.UDP

B.TCP

C.ICMP

D.Raw IP

6. (Single Choice) Which of the following cost values indicates that the route learned from RIP is unreachable?

A.8

B.10

C.15

D.16

7. (Single Choice) Which of the following statements regarding the function of holddown mechanism used by RIP is correct?

A.Save the bandwidth

B.Loop-avoidance

C.Propagate the unreachable routing information throughout the network.

D.Advertise the local route information to the RIP's neighbor

8. (Single Choice) Which of the following numbers is the maximum hop count in RIP?

A.12

B.15

C.16

D.Infinity

9. (Single Choice) Which of the following values is the update interval for RIP?

A.5s

B.30s

C.60s

D.180s

10. (Single Choice) Routing Information Protocol (RIP) uses ( ) to exchange routing information and sends out updated packets at a certain interval.

A.TCP

B.UDP

C.RSVP

D.LDP

11. (Single Choice) Routing Information Protocol (RIP) is available in the RIPv1, RIPv2, and RIPv3 versions.

T.True

F.False

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12. (Single Choice) How many hops from a router to the directly connected network does the RIP protocol specify?

A.0

B.1

C.Infinite

D.None of the above

13. (Single Choice) By default, RIPv2 sends packet by means of ( ).

A.Unicast

B.Multicast

C.Broadcast

D.Multicast and broadcast

14. (Multiple Choice) What features does RIPv2 provide? (Select 3 Answers)

A.Extension of subnet mask(VLSM)

B.Large scale network

C.Plain text authentication

D.MD5 encrypted text authentication

15. (Multiple Choice) Which of the following methods are used by RIP to avoid routing loop? (Select 3 Answers)

A.Split-horizon

B.Holddown

C.Rebooting routers

D.Defining the maximum routing metric

16. (Single Choice) Which of the following statements regarding distance vector algorithm are incorrect? (Select 2 Answers)

A.Distance vector algorithm does not generate routing loops.

B.Distance vector routing protocol is implemented by exchanging routing information.

C.The routes are advertised as vectors of (destination, cost).

D.Routers running distance vector protocols obtain routing information from its own neighbors only.

17. (Multiple Choice) Which of the following are main functions of split horizon used by distance vector routing protocols? (Select 3 Answers)

A.Prevent the routing loops between two adjacent routers.

B.Ensure the routing updates not being sent back to the direction from which it was received.

C.Work together with holddown mechanism to prevent the routing loops.

D.Replace the poison reverse algorithm

18. (Multiple Choice) Which of the following statements regarding Bellman-Ford algorithm are correct? (Select 2 Answers)

A.RIP is based on Bellman-Ford algorithm.

B.Bellman-Ford is essentially a Dijkstra algorithm.

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C.When Bellman-Ford algorithm is used to calculate the routes, it does not need to know the whole topology of network.

D.Bellman-Ford algorithm is a link-state algorithm.

19. (Single Choice) Which of the following commands is used to disable automatic route aggregation for RIP?

A.Undo rip

B.Summary

C.Undo summary

D.Undo network 10.0.0.0

20. (Multiple Choice) Which of the following statements regarding RIP v1 and RIP v2 are correct? (Select 2 Answers)

A.RIP v1 supports VLSM.

B.RIP v2 supports VLSM.

C.RIP v2 uses route aggregation by default.

D.RIP v1 supports simple password authentication only, while RIP v2 supports MD5 authentication.

21. (Multiple Choice) Which of the following messages can be processed by the interface working in RIPv2 Broadcast mode? (Select 2 Answers)

A.RIPv1 broadcast messages

B.RIPv1 multicast messages

C.RIPv2 broadcast messages

D.RIPv2 multicast messages

22. (Single Choice) Which of the following statements regarding routing loops in RIP is correct?

A.Distance Vector algorithm can calculate the shortest path to the destination according to the given topology.

B.Split horizon can prevent the routing loop between two neighboring routers only.

C.Although Holddown mechanism results in slow convergence, it can completely prevent the routing loop.

D.Maximum hop count mechanism can solve the problem caused by routing loop.

23. (Multiple Choice) Which of the following statements regarding RIP v1 and RIP v2 are correct? (Select 2 Answers)

A.RIP v1 does not support multicast. By default, it does not advertise the information about subnet.

B.RIPv2 supports multicast. It can choose not to advertise the information about subnet.

C.RIPv1 can advertise information about subnet by disabling the automatic route aggregation.

D.RIPv2 broadcasts message by default. The command "rip version 2 multicast" must be configured to make RIPv2 send message with multicast address.

24. (Multiple Choice) Which of the following statements regarding RIP network scale are correct? (Select 3 Answers)

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A.Bellman-Ford algorithm used by RIP can accurately calculate the shortest path of a large scale network.

B.The maximum hop count of RIP is 16 and it can be used to prevent the packets from circulate infinitely in the network.

C.It is recommended to use other routing protocols such as OSPF instead of RIP when the network topology is more complicated even though the hop count is less than 16.

D.RIP is not suitable for large scale network because it advertises the whole routing table periodically and this consumes a lot bandwidth. So, RIP is suitable for small scale network only.

25. (Multiple Choice) Which of the following statements regarding RIP routing information are correct? (Select 2 Answers)

A.User can specify the route preference of RIP higher than that of static routes.

B.If the route calculated by other routing protocol which is imported by RIP does not specify the cost value, the cost value will be set as 1 by default

C.User can specify the route preference value of RIP lower than that of direct routes.

D.The route preference of RIP can not be configured manually.

26. (Multiple Choice) Which of the following statements regarding split horizon used by RIP are correct? (Select 3 Answers)

A.Split horizon is used to avoid routing loop. The main idea of Split Horizon is that the information can not be sent back in the direction from which the data was received.

B.Split horizon will not prevent the routing loop between 2 routers.

C.Split horizon might cause some of the routers not able to obtain the accurate routing information.

D.On the VRP platform, split horizon is enabled by default. It can be disabled when necessary.

27. (Multiple Choice) Which of the following statements regarding RIP route aggregation are correct? (Select 3 Answers)

A.RIP v1 supports route aggregation by default and it can be disabled when necessary.

B.We can disable the route aggregation on RIP V2.

C.RIPv1 does not support CIDR

D.RIPv2 supports CIDR.

28. (Single Choice) After a command for displaying RIP route information is entered on a router, peer 192.169.1.3 on ethernet1/0/1 is displayed in the returned result. What does ethernet1/0/1 stand for?

A.Port connected to the RIP neighbor with the IP address of 192.169.1.3

B.Port corresponding to the RIP transmission address

C.Port with the broadcast protocol enabled

D.Port with the multicast protocol enabled

29. (Single Choice) What does the value 1 of cost in the RIP route information mean?

A.The route cost is 0.

B.The priority of the RIP protocol is 1.

C.Only one hop exists between the router and the destination network segment.

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D.The route progress number is 1.

E.The route weight is 1.

30. (Multiple Choice) Which of the following statements about RIP protocol priorities are true? (Select 3 Answers)

A.With routing protocol priorities, a route obtained by a certain routing protocol can be selected as the optimal route according to the specified routing policy.

B.A greater value of the RIP routing protocol priority means a higher priority.

C.The RIP protocol priority can be set manually on a router.

D.By default, the RIP protocol priority of Huawei router is 100.

31. (Multiple Choice) What are the rip metricout value and rip metricin value commands used to set in the interface view? (Select 2 Answers)

A.Metric increased by sending RIP route information on the interface

B.Metric increased by receiving RIP route information on the interface

C.Metric contained in the transmitted RIP route information on the interface

D.Metric contained in the received RIP route information on the interface

32. (Multiple Choice) The RIP packet version is set in the interface view. Which of the following statements are true in the case of version RIPv1? (Select 2 Answers)

A.The interface receives only RIPv1 and RIPv2 broadcast packets.

B.The interface does not receive RIPv2 multicast packets

C.The interface receives only RIPv1 broadcast packets.

D.The interface does not receive RIPv2 broadcast packets.

33. (Single Choice) When an RIP route is unavailable, the router deletes this RIP route from the routing table if it fails to receive a packet updating this RIP route information after a period of ( ).

A.120s

B.180s

C.240s

D.300s

34. (Single Choice) After receiving a Response packet from a neighbor, the RIP protocol calculates the routing metric. The calculated routing metric must be equal to or greater than ( ).

A.The metric contained in the packet

B.The metric contained in the packet plus 1

C.The metric contained in the packet plus the cost of the destination network

D.The cost of the destination network

18.2 Reference Answer

1. D	2.AD	3.D	4.AC	5.A	6.D	7.B	8.B	9.B
10.B	11.F	12.A	13.B	14.ACD		15.ABD	16.AC	17.ABC

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18.AC 19.C 20.BC 21.AC 22.B 23.AB 24.BCD 25.AB

26.ACD 27.BCD 28.A 29.C 30.ACD 31.AB 32.AB

33.A 34.C

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19 Link State Routing with OSPF

19.1 Question

1. (Single Choice) Which of the following routing protocols are the link state routing protocols?

A.RIP

B.BGP

C.IP

D.OSPF

2. (Multiple Choice) Which of the following statements regarding the comparison between OSPF and RIP are correct? (Select 3 Answers)

A.OSPF is more appropriate for large networks than RIP.

B.RIP is more appropriate for small networks than OSPF.

C.RIP is more appropriate for flat network design while OSPF is more appropriate for hierarchical network design.

D.In the same network, RIP will consume more bandwidth than OSPF.

3. (Multiple Choice) Which of the following statements regarding OSPF are correct? (Select 3 Answers)

A.Support CIDR (Classless Inter-Domain Routing)

B.Use the distance vector algorithm

C.Use the triggered updates to immediately notify the neighbors about the topology changes so that the changes are synchronized in the AS.

D.Use the reserved multicast addresses to transmit protocol packets.

4. (Multiple Choice) Which of the following statements regarding OSPF are correct? (Select 3 Answers)

A.OSPF is an EGP.

B.OSPF calculates the shortest path tree based on the link sate information and OSPF itself will not generate the routing loop

C.Supporting authentication of the messages and this enhanced the security

D.Supporting ECMP (Equal Cost Multi-Path)

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5. (Multiple Choice) Which of the following statements regarding the OSPF router types are incorrect? (Select 3 Answers)

A.ABR can be ASBR at the same time.

B.ABR is the router connecting any two OSPF areas and it can be used to transmit the routing information between them.

C.The router inside an OSPF area can not be ASBR.

D.An OSPF router can belong to two or more areas but can be the ABR for a “single” area only.

6. (Single Choice) In OSPF protocol, most of the packets are sent by using reserved multicast address and this can reduce the impact on non-OSPF speaking devices.

T.True

F.False

7. (Single Choice) On VRP platform, which of the following is the default route preference value for OSPF routing protocol?

A.10

B.1

C.100

D.120

8. (Multiple Choice) Which of the following network types are supported by OSPF? (Select 3 Answers)

A.Point-to-Point

B.Point-to-Multipoint

C.Bus Topolopy

D.Broadcast

9. (Multiple Choice) In OSPF protocol, an ABR can also function as ( ) (Select 2 Answers)

A.IR (Internal Router)

B.BR (Backbone Router)

C.ASBR

D.Stub Router

10. (Single Choice) In an OSPF area, routers exchange information about ( ). This type of information forms an information library.

A.Link status

B.Distance vector

C.Route cost

D.Route priority

11. (Single Choice) A router with OSPF enabled calculates the shortest route to the destination by using ( ) algorithm.

A.OSPF

B.SPF

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C.SRC

D.OPF

12. (Single Choice) OSPF can generate a loop-free shortest route tree by using a routing protocol algorithm. Thus, the OSPF routing protocol has no loop problem.

T.True

F.False

13. (Single Choice) OSPF runs over the IP protocol and the IP protocol No. used by OSPF is ( ).

A.89

B.80

C.512

D.2328

14. (Single Choice) OSPF has experienced several versions. Which of the following versions is experimental and has never been deployed?

A.OSPFv1

B.OSPFv2

C.OSPFv3

D.OSPFv4

15. (Single Choice) Which of the following OSPF versions is specific to the IPv6 technology?

A.OSPFv1

B.OSPFv2

C.OSPFv3

D.OSPFv4

16. (Multiple Choice) Which of the following statements about the features of the OSPF protocol are true? (Select 3 Answers)

A.The OSPF protocol supports area division.

B.The OSPF protocol is quick in route convergence when routes change.

C.The OSPF protocol supports “multiple” equal-cost routes.

D.The OSPF protocol supports encrypt protocol packets.

17. (Multiple Choice) The link state database (LSDB) on an OSPF router is formed based on ( ). (Select 2 Answers)

A.local LSA

B.LSA advertised by a neighboring router

C.RSVP packet advertised to a neighboring router

D.RSVP packet advertised by a neighboring router

18. (Single Choice) Each router calculates the shortest path tree based on the LSDB with itself as a ( ) node.

A.Root

B.leaf

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C.Specified root

D.Backup

19. (Multiple Choice) The shortest path tree calculated by a router in an OSPF area provides ( ) on the path from this router to other nodes in the network.

A.All link states

B.Routing table

C.MAC address table

D.ARP table

20. (Multiple Choice) Which of the following statements about an OSPF neighboring router are true? (Select 2 Answers)

A.An OSPF interface broadcasts Hello packets to discover a neighbor.

B.After a router receives a Hello packet from the peer router, it becomes the neighbor of the peer router.

C.After an OSPF router receives a Hello packet from the peer OSPF router, it checks the parameters in the packet. If the parameters in the packet from the peer OSPF router are consistent with the parameters of this OSPF router, the two OSPF routers become neighbors of each other.

D.Neighbor discovery is equivalent to adjacency establishment.

21. (Single Choice) Two OSPF routers become neighbors only after they successfully exchange ( ) packets and LSAs.

A.Hello

B.DD

C.LSR

D.LSU

22. (Single Choice) When two routers synchronize their LSDBs, they use ( ) packets to describe their own LSDBs.

A.Hello

B.DD

C.LSR

D.LSU

23. (Multiple Choice) In a ( ) network, DRs and BDRs are used to prevent the problem with route convergence at a low speed. (Select 2 Answers)

A.Point-to-point

B.Broadcast

C.NBMA

D.Point-to-multipoint

24. (Multiple Choice) Which of the following statements regarding Autonomous System Boundary Router are correct? (Select 2 Answers)

A.ASBR is the router that imports the routes calculated by other protocols into OSPF.

B.ASBR is not always on the border of AS but it can be set anywhere in the AS except Stub area.

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C.ABR can not be ASBR at the same time.

D.ASBR must belong to two OSPF areas.

25. (Single Choice) Which of the following statements regarding the routing loop in OSPF is correct?

A.Routing loop is eliminated within an OSPF area.

B.Routing loop is not eliminated between two OSPF areas.

C.Routing loop is not eliminated within an OSPF Autonomous Systems.

D.No routing loop exists outside the OSPF autonomous system.

26. (Multiple Choice) Which of the following statements regarding OSPF area are incorrect? (Select 2 Answers)

A.Without manual configuration, an OSPF area is a backbone area with area ID 0 by default.

B.OSPF supports area division.

C.Every OSPF area is identified by a 32-bit Area ID number.

D.Area ID must be assigned by IANA and we can not simply assign it.

27. (Multiple Choice) Which of the following statements regarding adjacencies of OSPF routers are correct? (Select 4 Answers)

A.After two routers have been received the Hello packets from each other, they will form the adjacency automatically.

B.IF two routers are fully adjacent, the network type between them may be Point-to-Point network.

C.IF two routers are fully adjacent, the network type between them may be Point-to-Multipoint network.

D.IF two routers are fully adjacent and the network type between them is broadcast network, then one of routers must be either DR or BDR.

E.Only two adjacent routers can exchange LSAs.

28. (Single Choice) In broadcast network of OSPF protocol, any two DR Others will neither exchange routing information nor send Hello packet to each other due to the existence of DR.

T.True

F.False

29. (Single Choice) OSPF is an application layer protocol and it runs on ( )

A.UDP, port number 520

B.TCP, port number 179

C.IP, Protocol Number 89

D.Data Link layer

30. (Single Choice) OSPF takes the precedence to select ( ) as a router ID unless you specify a router ID manually.

A.the biggest IP address of all the loopback port addresses

B.the biggest IP address of the physical port IP addresses

C.127.0.0.1

D.the IP address of a port connected to an OSPF neighbor

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31. (Single Choice) After OSPF divides an AS into different areas, what is communicated between these areas?

A.Abstract route information for each area

B.Link state information for each area

C.Topology information for each area

D.Link bandwidth information for each area

32. (Single Choice) A backbone OSPF area is responsible for releasing the information collected by each border router to non-backbone OSPF areas. Which of the following represents the ID of a backbone OSPF area?

A.area 0

B.area 1

C.area 0.0.0.1

D.area 0.0.0.2

33. (Multiple Choice) Which of the following statements regarding the backbone area in OSPF protocol are correct? (Select 3 Answers)

A.The area ID of the backbone area is 0.0.0.1.

B.Each area must be connected to the backbone area.

C.Backbone area is responsible for advertising the aggregated routing information generated by ABR between non-backbone areas.

D.ABR connects to different areas and at least one of the connected area is backbone area.

34. (Single Choice) Assume that a non-backbone area and backbone area can not be directly connected. Which of the following ways can be used to solve this problem?

A.Configuring ABR

B.Configuring ASBR

C.Configuring Virtual-link

D.Configuring Stub area

35. (Single Choice) presentation [A router runs OSPF and its interface Serial 0 with IP address 10.0.0.1/30 belongs to the backbone area, which of the following commands is used to enable OSPF at this interface?

A.[Quidway-ospf -1-area-0.0.0.0]network 10.0.0.0

B.[Quidway-ospf -1-area-0.0.0.0]network 10.0.0.0 0.0.0.3

C.[Quidway-serial0]ospf area 0 enable

D.[Quidway-ospf -1]network 10.0.0.0 255.255.255.252

36. (Multiple Choice) In an OSPF network, an ASBR router advertises the information about the routes outside an AS to the AS. Which of the following routers can function as an ASBR? (Select 3 Answers)

A.IR

B.ABR

C.A router that belongs to the backbone OSPF area

D.A router that does not belong to the backbone OSPF area

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37. (Multiple Choice) Which of the following statements about the configuration of OSPF areas are true? (Select 2 Answers)

A.All non-backbone OSPF areas must be connected to a backbone OSPF area, either physically or logically.

B.An ABR generates LSDBs separately for backbone OSPF areas and non-backbone OSPF areas.

C.The same network segment on an ABR must be enabled in both backbone OSPF areas and non-backbone OSPF areas.

D.An ABR generates a uniform LSDB for all OSPF areas.

38. (Multiple Choice) What advantages does hierarchical routing defined by OSPF have? (Select 3 Answers)

A.Extend the interval of SPF calculation.

B.Decrease the size of a routing table.

C.Reduce the number of link state update packets.

D.Reduce the number of network layers.

39. (Multiple Choice) OSPF routers are classified into four types. Which of the following statements about interior routers (IRs) are true? (Select 2 Answers)

A.The ports on an IR belong to a same area.

B.An IR is located in the center of a physical area.

C.Only one port on an IR connects to a backbone area.

D.If all the ports on an IR belong to area 0, this IR functions as a backbone router.

40. (Multiple Choice) Which of the following areas fall into the OSPF area group? (Select 3 Answers)

A.Standard area

B.Stub area

C.Totally stubby area

D.Boundary area

41. (Multiple Choice) Which of the following statements about the functions of an ABR are true? (Select 3 Answers)

A.An ABR is a gateway in the case of communication between different areas.

B.An ABR collects the topology information about an area that is connected to the ABR and sends the information to the backbone area.

C.An ABR maintains one LSDB for every area connected to the ABR.

D.An ABR provides at least two port for connecting to a backbone area.

42. (Single Choice) Which of the following is the metric of OSPF?

A.Number of hops

B.COST

C.Priority

D.LSA

43. (Multiple Choice) Each OSPF router floods LSAs to advertise link status information, including ( ). (Select 3 Answers)

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A.Ports

B.Available neighbors

C.Information about adjacent network segments

D.Local link status information

44. (Single Choice) According to the OSPF protocol, a router floods LSAs. In this context, what does "flood" mean?

A.An action sending a link state database

B.An action synchronizing a link state database

C.An action sending and synchronizing a link state database

D.An action deleting a link state database from a port

45. (Multiple Choice) Which of the following statements about the information contained in a DD packet are true? (Select 3 Answers)

A.A DD packet contains all information about each LSA.

B.A DD packet contains only the header of an LSA.

C.The header of an LSA is the unique identifier of the LSA.

D.The header of an LSA is only a small portion of all the data of the LSA.

19.2 Reference Answer

1. D	2.ACD	3.ACD	4.BCD	5.BCD	6.T	7.A
8.ABD	9.BC	10.A	11.B	12.T	13.A	14.A
15.C	16.ABC	17.AB	18.A	19.B	20.AC	21.B
22.B	23.BC	24.AB	25.A	26.AD	27.BCDE	
28.F	29.C	30.A	31.A	32.A	33.BCD	
34.C	35.B	36.BCD	37.AB	38.ABC	39.AD	
40.ABC	41.ABC	42.B	43.BCD	44.C	45.BCD	

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20 DHCP Protocol Principles

20.1 Question

1. (Single Choice) Which of the following is the abbreviation for DHCP?

A.Dynamic Host Configuration Protocol
B.Dynamic Host Connection Protocol
C.Dynamic Hot Connection Protocol
D.Denial Host Configuration Protocol

2. (Single Choice) Which layer of OSI reference model does DHCP belong to?

A.Physical layer
B.Data-link layer
C.Network layer
D.Application layer

3. (Single Choice) What is the main function of DNS?

A.Sender
B.Receiver
C.Harddisk
D.Message
E.Protocol

4. (Single Choice) What is the underlying protocol used by DHCP to send messages?

A.TCP
B.UDP
C.RTP
D.SIP

5 (Single Choice) In Window XP system, which of the following commands is used to release the IP address assigned by the DHCP Server?

A.ipconfig /all
B.ipconfig /renew

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C.ipconfig /release

D.ipconfig

20.2 Reference Answer

1. A 2.D 3.A 4.B 5.C

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21 FTP Protocol Principles

21.1 Question

1. (Multiple Choice) Which of the following protocols can be used for file transfer? (Select 2 Answers)

A.FTP

B.TFTP

C.Telnet

D.Icmp

2. (Single Choice) Which of the following protocols is transport layer protocol of TFTP?

A.SIP

B.UDP

C.TCP

D.RTP

3. (Single Choice) Which of the following is an attribute of file transferred by using FTP?

A.Low speed

B.High throughput

C.Simple

D.Read-only memory

4. (Multiple Choice) TFTP can control a TFTP user according to the user name and password.

T.True

F.False

5. (Single Choice) By default, which port is used by the FTP server to establish the data connection?

A.20

B.21

C.23

D.25

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6. (Single Choice) FTP session consists of two types of connections, they are( ) (Select 2 Answers)

A.Output connection

B.Input connection

C.Control connection

D.Data connection

7. (Multiple Choice) Which of the following applications are based on the TCP protocol? (Select 2 Answers)

A.PING

B.FTP

C.TELNET

D.OSPF

8. (Multiple Choice) Which of the following statements about FTP are true? (Select 2 Answers)

A.FTP is based on the UDP protocol.

B.FTP is used to provide low-speed file transfer.

C.TFTP can control an FTP user according to the login name and password.

D.A router can work as either an FTP Client or an FTP Server.

9. (Multiple Choice) Which of the following statements about TFTP are true? (Select 3 Answers)

A.TFTP is based on the UDP protocol.

B.TFTP is a simple file transfer protocol and applicable to read-only memory.

C.TFTP can control a TFTP user according to the login name and password.

D.TFTP supports only the Client mode.

10. (Multiple Choice) Which of the following protocols or applications are based on UDP? (Select 2 Answers)

A.FTP

B.TFTP

C.SNMP

D.Telnet

21.2 Reference Answer

1. AB 2.B 3.B 4.T 5.A 6.CD 7.BC 8.CD 9.ABD

10.BC

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22 Telnet Protocol Principles

22.1 Question

1. (Single Choice) Which port number does Telnet uses for protocol transmission?

A.23
B.24
C.8080
D.48

2. (Single Choice) Which transport-level protocol does Telnet use?

A.TCP
B.UDP
C.ECMP
D.UCMP

3. (Single Choice) Which of the following port numbers is used by Telnet?

A.23
B.25
C.27
D.29

4. (Single Choice) What is the underlying protocol used by Telnet to transmit data?

A.RTP
B.SIP
C.UDP
D.TCP

5. (Multiple Choice) Compared with telnet, which of the following advantages does SSH support? (Select 3 Answers)

A.Encrypt the transmitted data to guarantee its security and reliability
B.Prevent DNS and IP spoofing
C.Accelerate the data transmission speed by compressing the data

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D.Scalable application based on UDP connection

6. (Multiple Choice) Which of the following protocols or applications are based on TCP? (Select 3 Answers)

A.FTP

B.DNS

C.SNMP

D.Telnet

7. (Single Choice) Which of the following commands is used to check whether an application-level protocol works normally?

A.PING

B.TRACE

C.Extended ping

D.TELNET

22.2 Reference Answer

1. A 2.A 3.A 4.D 5.ABC 6.ABD 7.D

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23 Advanced Enterprise Solutions Overview

23.1 Question

1. (Single Choice) An administrator connects two switches together in a local enterprise network. The ports of one switch support Fast Ethernet, while the ports of the other switch support Gigabit Ethernet. Hosts connected to one switch are able to communicate, however communication between the two switches fails. What is the possible reason for this?

A. The ports have disabled auto-negoatition.

B. One port is supporting auto-negotiation, while auto-negotiation is disabled on the port of the other switch.

C. The port of one switch is operating using half duplex mode, while the port of the other switch is using full duplex mode.

D. A Fast Ethernet port cannot communicate directly with a Gigabit Ethernet port.

23.2 Reference Answer

1.A

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24 Link Aggregation

24.1 Question

1. (Single Choice) ( ) combines “multiple” ports to form an aggregation group. It can be used to balance the traffic among member ports and improve the connection reliability.

A.Port Aggregation

B.Port binding

C.Port load balance

D.Port group

2. (Multiple Choice) What benefits does port aggregation yield? (Select 3 Answers)

A.Improves link bandwidth

B.Implements load sharing

C.Improves network reliability

D.Facilitates data copy for analysis

3. (Single Choice) ( ) What is the maximum number of member interfaces supported by a single Eth-Trunk?

A.6

B.8

C.10

D.12

4. (Multiple Choice) ( ) The Eth-Trunk frame forwarding mechanism used to prevent changes in the data sequence forwards frames based on which of the following parameters?

A. The same source or destination IP address

B. The same source or destination MAC address.

C. The same protocol type.

D. The same source or destination port number.

5. (Single Choice) ( ) In Layer 2 mode, the transmission rate of an Eth-Trunk interface is determined by which of the following?

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A. Maximum number of Up member links

B. Minimum number of Up member links

C. Number of Up member interfaces

D. Number of interfaces.

6. (Single Choice) ( ) The network administrator wishes to forward data over an Eth-trunk, however associated member interfaces operate at different rates. In terms of the resulting behavior, which of the following is true?

A. The two switches will not be able to communicate.

B. The higher rate member interfaces may incur packet loss.

C. The Eth-Trunk will work normally.

D. The lower rate member interfaces may incur packet loss.

7. (Multiple Choice) ( ) The network administrator attempts to add interface G0/0/1 on Switch A to Eth-trunk 1, however the command fails. Which of the following may cause this?

A. The interface is operating in half-duplex mode.

B. The interface has been shutdown.

C. The interface is already associated with another Eth-trunk.

D. The interface is an access port.

24.2 Reference Answer

1. A 2.ABC 3.B 4.AB 5.AC 6.D 7.CD

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25 VLAN Principles

25.1 Question

1. (Single Choice) According to IEEE802.1Q, where is VLAN ID in the tagged Ethernet frame?

A.Not fixed

B.In front of the source MAC address and destination MAC address

C.Behind the source MAC address and destination MAC address

D.Between the source MAC address and destination MAC address

2. (Single Choice) A VLAN can be considered as a ( ).

A.Collision domain

B.Broadcast domain

C.Management domain

D.Blocking domain

3. (Single Choice) Which of the following standards is defined by IEEE to regulate the implementation of VLAN between switches?

A.802.1x

B.802.1d

C.802.1q

D.802.3

4. (Single Choice) Which of the following technologies can reduce the scope of broadcast domain?

A.VLAN

B.Trunk

C.RARP

D.STP

5. (Single Choice) For VLAN link type,the link between a switch and a PC is ( ).

A.Access link

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B.Trunk link

C.Hybrid link

D.ISL link

6. (Single Choice) A switch supports 802.1Q protocol, what is the maximum number of VLAN it can support?

A.512

B.1024

C.2048

D.4096

7. (Single Choice) VLAN is short for?

A.Virtual local area network

B.Virtual long area network

C.Virtual local area networking

D.Virtual long area networking

8. (Multiple Choice) Which of the following are the formats of Ethernet frame in the switching network? (Select 2 Answers)

A.Untagged frame

B.Token frame

C.Tagged frame

D.FDDI frame

9. (Multiple Choice) To implement network layer capability on the VLAN interface, we need to configure ( ) on VLAN interface. (Select 2 Answers)

A.IP address

B.MAC address

C.Subnet mask

D.IP prefix

10. (Single Choice) On VRP platform, what is the function for command "interface vlan-interface vlan-id"?

A.Create a VLAN

B.Create or enter VLAN interface

C.Configure VLAN for an interface

D.No such command

11. (Single Choice) How many bytes does a VLAN tag consist of?

A.2

B.3

C.4

D.5

12. (Multiple Choice) After the VLAN function is introduced to the Ethernet, the ports on a switch can be classified into ( ). (Select 3 Answers)

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A.Access port

B.Trunk port

C.Hybrid port

D.None port

13. (Single Choice) A Trunk port always sends tagged frames to the peer equipment.

T.True

F.False

14. (Single Choice) A VLAN in the Ethernet is used to separate ( ).

A.Layer 2 unicast domain

B.Layer 2 broadcast domain

C.Layer 2 multicast domain

D.Layer 2 MAC address

15. (Single Choice) During frame forwarding, a switch checks the VLAN tag carried in an Ethernet frame and then determines whether to forward the Ethernet frame through a port if the VLAN tag is a ( ) of this port.

A.Permitted tag

B.Default PVID

C.MAC address equivalence

D.STP disable state

16. (Multiple Choice) After an Ethernet frame uses a VLAN tag, the Ethernet frame can be expressed in two formats, namely, ( ) and ( ) in a switched network. (Select 2 Answers)

A.Untagged frame

B.Tagged frame

C.Row frame

D.Column frame

17. (Single Choice) VLAN tagged frame has extra ( ) bytes compared with standard Ethernet frame?

A.4

B.32

C.12

D.8

18. (Single Choice) How many bits are used to identify the VLAN id of the data frame?

A.4

B.32

C.12

D.8

19. (Single Choice) The fixed value of the TPID field in VLAN tag is ( ).

A.0x8100

B.0x0800

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C.0x0806

D.0x9100

20. (Multiple Choice) Which of the following are the advantages of VLAN compared with traditional LAN technology? (Select 3 Answers)

A.Lower cost for relocation and changes

B.Isolate broadcast domain and control the broadcast packets

C.Improve the network security

D.Enhance the network high available

21. (Single Choice) A port of the switch belongs to VLAN 5. If VLAN 5 is removed by using command "undo vlan 5", then which VLAN does this port belong?

A.0

B.1

C.1023

D.1024

22. (Multiple Choice) Which of the following methods can realize communication between VLANs at network layer? (Select 2 Answers)

A.STP

B.GVRP

C.L2 Switch+Router

D.L3 Switch

23. (Single Choice) Workstation A and workstation B are respectively connected to two ports of a switch. Assume the MAC table of the switch is empty now. Which of the following statements is true as soon as the switch receives the first packet sent by Workstation A to Workstation B?

A.The switch will learn address of A

B.The switch will learn address of B

C.The switch will not learn any address

D.The switch will learn addresses of both A and B

24. (Multiple Choice) Which of the following descriptions are correct about VLAN interface? (Select 2 Answers)

A.A virtual interface is required to be created for the VLAN if we want to assign an IP address for that VLAN,

B.Two VLAN interfaces on the same switch can be assigned with the same IP address

C.The VLAN interface number must be the same with VLAN ID

D.The VLAN interface can be configured for the non-existed VLAN

25. (Multiple Choice) An access port on a switch generally connects to a port on a computer. Which of the following statements are true? (Select 3 Answers)

A.After receiving a tag packet, the switch forwards it directly.

B.The default VLAN of an access port is the VLAN where the port is located. You do not need to manually configure a default VLAN for an access port.

C.An access port can belong to only one VLAN.

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D.After receiving an untag packet, the access port attaches its PVID information to the packet.

26. (Single Choice) What action does a Trunk port take after it receives an untag packet?

A.Discards the packet directly.

B.Attaches its trunk VLAN ID to the packet and then sends out the packet.

C.Sends out the packet directly without adding the tag information to the packet.

D.Attaches its PVID information to the packet and then sends out the packet.

27. (Multiple Choice) Which of the following statements are true after a Trunk port receives a tag packet? (Select 2 Answers)

A.Checks whether the Trunk port allows the tag packet to pass through.

B.Transparently transmits the tag packet.

C.Discards the tag packet directly if the Trunk port does not allow the tag packet to pass through.

D.Attaches its PVID information to the packet and then sends out the packet.

28. (Multiple Choice) Which of the following statements about VLAN communication are true? (Select 2 Answers)

A.One-arm routing can be configured for a Layer 3 switch only by using a router 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.

C.Layer 3 VLAN interfaces can be configured on a Layer 3 switch to implement VLAN communication.

D.Layer 3 VLAN interfaces can be configured on a Layer 2 switch to implement VLAN communication.

29. (Multiple Choice) Which of the following statements about the advantages of the VLAN function are true? (Select 2 Answers)

A.The VLAN function reduces network costs by reducing the number of physical ports on switches.

B.The VLAN function improves network security by identifying users that are allowed to access sensitive data and applications.

C.The VLAN function improves network performance by implementing flow control and using the window advertisement mechanism.

D.The VLAN function divides a network into several small logical networks, reducing the impact of a broadcast storm on a network.

30. (Multiple Choice) A frame tag adds ( ) to each frame so that the frame can be transmitted through Trunk ports on switches.

A.Destination MAC address

B.Source MAC address of a switch

C.VLAN ID

D.Bridge ID of a switch

31. (Multiple Choice) Which of the following are the features of the default VLAN setting in a switch configuration? (Select 2 Answers)

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A.The default VLAN cannot be deleted manually.

B.By default, the ports on all switches are member ports of a default VLAN.

C.A default VLAN must be created before a port is allocated to a VLAN.

D.The IP address configured for a switch is applied only to a member port in the default VLAN.

32. (Multiple Choice) Which of the following statements about VLAN are true? (Select 2 Answers)

A.In the switch configuration, if the default VLAN is VLAN 1, it cannot be deleted or renamed.

B.A switch supports a maximum number of 255 VLANs.

C.A “single” access port can pass through “multiple” VLANs.

D.“Multiple” VLANs can pass through a “single” trunk.

33. (Single Choice) Switch-A and Switch-B are configured with ports in VLANs for R&D Department, Sales Department, Product Department, Financial Department, and HR Department. Each VLAN contains 20 users. In this case, how many subnets at least are required to provide routes between all VLANs?

A.5

B.20

C.50

D.100

34. (Single Choice) Of all the VLAN grouping methods, the grouping method by IP address is called ( ) VLAN.

A.Port-based

B.Route-based

C.MAC address-based

D.Policy-based

35. (Single Choice) Which VLAN does an access port of a switch belong to?

A.The only defined VLAN

B.The VLAN with the greatest No.

C.All VLANs

D.The VLAN with the smallest No.

36. (Single Choice) A network administrator wants to divide the hosts in building A into VLAN 3 and VLAN 5. Which of the following statements about VLAN configuration is true?

A.VLAN information is saved automatically in the starting configuration.

B.After VLAN 3 and VLAN 5 are created manually, the default VLAN is removed automatically.

C.The network administrator can create a VLAN either in the global view or in the VLAN view.

D.The two VLANs can be named BUILDING_A to differentiate them from the VLANs in other geographical areas.

37. (Multiple Choice) Which of the following statements are true in the process of deleting a VLAN? (Select 2 Answers)

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A.The member port of a VLAN becomes inactive after the VLAN is deleted.

B.When a routing-based interface (Vlanif) is available for a VLAN, the Vlanif interface must be deleted before the VLAN is deleted.

C.A network administrator can delete a VLAN either in the global view or in the VLAN view.

D.A VLAN can be deleted only after its member port is allocated to another VLAN.

38. (Multiple Choice) Which of the following statements about the process of creating a VLAN are true? (Select 2 Answers)

A.The member port of this VLAN enters the active state immediately.

B.A routing-based interface (Vlanif) can be created for a VLAN only after the VLAN is created.

C.A network administrator can create a VLAN either in the global view or in the VLAN view.

D.A VLAN can be created only after its member port is allocated to another VLAN

39. (Multiple Choice) Which of the following steps are necessary to configure a port to the specified vlan in SYSTEM view? (Select 2 Answers)

A.Enter the VLAN view

B.Specify proportion of broadcast storm for VLAN

C.Specify description for VLAN or VLAN interface

D.Assign VLAN for the Ethernet port

40. (Single Choice) Information below shows the partial interface configuration on a Huawei switch. According to this configuration, PVID of this interface is ( ).

[Quidway\]display interface Ethernet 1/0/1

Mdi type: auto

Port link-type: access

Tagged VLAN ID: none

Untagged VLAN ID: 5

A.0

B.1

C.5

D.Not able to interpret the PVID from the information given

41. (Single Choice) Which of the following ports can be configured to permit VLAN to pass? (Select 2 Answers)

A.Trunk

B.Access

C.Hybrid

D.Normal

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42. (Multiple Choice) A trunk port is configured to permit vlan 3, vlan4 and vlan 5 to pass. The frames of vlan 3 and vlan 4 are tagged but the frames of VLAN 5 are untagged. Which of the following may cause the problem?

A.Port PVID is 5

B.Port PVID is 3 and 4

C.Only the command "port trunk permit vlan 3 4 "was configured for the trunk port.

D.GVRP is enabled on this port

43. (Multiple Choice) Which of the following descriptions about access-link are correct? (Select 2 Answers)

A.When access port receives a frame without 802.1Q tag header, the default PVID will be added to the frame.

B.When access port receives a frame with VLAN ID in 802.1Q tag header different from the default PVID, VLAN ID in 802.1Q tag header is changed to the default PVID.

C.When access port sends a frame, 802.1Q tag header is removed and standard Ethernet frame is sent.

D.When access port sends a frame, 802.1Q tag header is kept and a tagged frame is sent

44. (Multiple Choice) Which of the following descriptions about trunk link are correct? (Select 3 Answers)

A.When trunk port receives a frame without 802.1Q tag header, the default PVID will be added to the frame.

B.When trunk port receives a frame with 802.1Q tag header, no changes is done on the frame.

C.When trunk port sends a frame whose VLAN ID is not same as default PVID, the frame is sent directly.

D.When trunk port sends a frame whose VLAN ID is same as the default PVID, no modification is done on the tag.

45. (Multiple Choice) To make sure all hosts belonging to the same VLAN can receive the broadcast packets sent to this VLAN, which of the following operations are needed on the switch? (Select 2 Answers)

A.Send the packets out of all ports of the switch.

B.Send the packets out of other ports that belong to the same VLAN.

C.Send the packets to all trunk links that allow this VLAN to pass.

D.Send the packets to all trunk links.

46. (Single Choice) When the value of the two-byte TPID field in an Ethernet frame header is 0x8100, it indicates that this frame carries an ( ) tag.

A.802.1P

B.802.1Q

C.802.1D

D.802.1S

47. (Single Choice) All Ethernet frames in a switch flow in the form of ( ).

A.BPDU

B.PVID

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C.Untagged frame

D.Tagged frame

48. (Single Choice) A switch is based on port-based VLAN IDs. When the switch receives untagged frames, the VLAN ID is determined by ( ).

A.BPDU

B.PVID

C.MAC mapping table

D.IP Address

25.2 Reference Answer

1. C	2.B	3.C	4.A	5.A	6.D	7.A	8.AC	9.AC
10.B	11.C	12.ABC	13.F	14.B	15.A	16.AB	17.A	18.C
19.A	20.ABC	21.B	22.CD	23.A	24.AC	25.BCD	26.D	
27.AC	28.BC	29.BC	30.C	31.AB	32.AD	33.A	34.B	35.A
36.C	37.BC	38.BC	39.AD	40.C	41.AC	42.A	43.AC	44.ABC
45.BC	46.B	47.D	48.B					

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26 GARP and GVRP

26.1 Question

1. (Single Choice) A switch is configured with VLAN 3, VLAN 4 and VLAN 5. GVRP is not enabled for the trunk port. The trunk port then receives a frame with VLAN ID 6. This frame will be ( ).

A.Flooded to all VLANs

B.Flooded to VLAN 1 only

C.Flooded to all trunk ports

D.Discarded

2. (Single Choice) Which of the following protocols can dynamically register VLAN information?

A.GVRP

B.GMRP

C.VRRP

D.STP

3. (Single Choice) GVRP represents Generic VLAN registration protocol, it is an application of ( ).

A.GMRP

B.GMTP

C.IGMP

D.GARP

4. (Single Choice) GVRP is short for ?

A.GARP VLAN Registration Protocol

B.GARP VLAN Record Protocol

C.GARP VLAN Remark Protocol

D.GARP VLAN Rewrite Protocol

5. (Single Choice) A gvrp command is used to enable GVRP, and an undo gvrp command is used to disable GVRP. By default, GVRP is ( ).

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A.in enable state

B.in disable state

C.subject to the last VLAN operation

D.in an arbitrary state

6. (Multiple Choice) Which of the following statements about the gvrp command are true?

A.Before port GVRP is enabled by running this command, global GVRP must be enabled.

B.If global GVRP is in disable state, this command can enable port GVRP.

C.If global GVRP is in disable state, port GVRP is also in disable state.

D.Enabling or disabling global GVRP is performed in the system view by running a gvrp command.

7. (Single Choice) GVRP protocol can operate at ( ) port.

A.Trunk

B.Access

C.hybrid

D.Normal

8. (Single Choice) Which of the following descriptions about GARP is incorrect?

A.GARP provides a mechanism by which the members in a switched network can implement distribution, propagation and registration of certain information.

B.In GARP working mechanism, the attribute is spread to the whole network by the process "declaration-registration-declaration"

C.GARP is called generic attribute registration protocol

D.GARP has only one application: GVRP

26.2 Reference Answer

1. D 2.A 3.D 4.A 5.B 6.ACD 7.A 8.D

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27 VLAN Routing

27.1 Question

1. (Single Choice) Direct interconnection of traffic with different VLANs is not allowed. Such traffic must be transmitted based on ( ).

A.Port isolation

B.MAC addresses

C.VLAN routing

D.VLAN switching

2. (Single Choice) On huawei router,Before you configure the IP address of an Ethernet sub-port, you need to configure ( ).

A.MAC address

B.VLAN encapsulation

C.Global GVRP

D.Port GVRP

3. (Multiple Choice) Which of the following methods can realize communication between VLANs at network layer?

A.STP

B.GVRP

C.L2 Switch+Router

D.L3 Switch

4. (Multiple Choice) Which of the following descriptions are correct about VLAN interface?

A.A virtual interface is required to be created for the VLAN if we want to assign an IP address for that VLAN,

B.Two VLAN interfaces on the same switch can be assigned with the same IP address

C.The VLAN interface number must be the same with VLAN ID

D.The VLAN interface can be configured for the non-existed VLAN

5. (Multiple Choice) Which of the following statements about VLAN communication are true?

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A.One-arm routing can be configured for a Layer 3 switch only by using a router 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.

C.Layer 3 VLAN interfaces can be configured on a Layer 3 switch to implement VLAN communication.

D.Layer 3 VLAN interfaces can be configured on a Layer 2 switch to implement VLAN communication.

6. (Single Choice) Of all the VLAN grouping methods, the grouping method by IP address is called ( ) VLAN.

A.port-based

B.route-based

C.MAC address-based

D.policy-based

7. (Multiple Choice) Of all the VLAN grouping methods, the grouping method by IP address is called ( ) VLAN.

A.The member port of a VLAN becomes inactive after the VLAN is deleted.

B.When a routing-based interface (Vlanif) is available for a VLAN, the Vlanif interface must be deleted before the VLAN is deleted.

C.A network administrator can delete a VLAN either in the global view or in the VLAN view.

D.A VLAN can be deleted only after its member port is allocated to another VLAN.

8. (Multiple Choice) Which of the following statements about the process of creating a VLAN are true?

A.The member port of this VLAN enters the active state immediately.

B.A routing-based interface (Vlanif) can be created for a VLAN only after the VLAN is created.

C.A network administrator can create a VLAN either in the global view or in the VLAN view.

D.A VLAN can be created only after its member port is allocated to another VLAN.

27.2 Reference Answer

1. C 2.B 3.CD 4.AC 5.BC 6.B 7.BC 8.BC

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28 Wireless LAN Overview

28.1 Question

1. (Multiple Choice) Which of the following WLAN standards support operation in the 5GHz range? (Two Answers).

A. 802.11a

B. 802.11b

C. 802.11g

D. 802.11n

2. (Single Choice) which of the following standards provide a transmission rate of more than 1Gbps ?

A. 802.11b

B. 802.11g

C. 802.11n

C. 802.11ac

28.2 Reference Answer

1. AD 2.D

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29 Bridging Enterprise Networks with Serial WAN Technology

29.1 Question

1. (Single Choice) HDLC is ISO standard link layer protocol and it is used to encapsulate data transmitted on asynchronous link.

T.True

F.False

2. (Single Choice) HDLC is a type of bit stream-oriented protocol used at Data Link Layer and it can transparently transmit data consisting of different collections of characters.

T.True

F.False

3. (Single Choice) All the protocols in the standard HDLC protocol suite run on synchronous serial line.

T.True

F.False

4. (Single Choice) According to OSI reference model, which layer does PPP reside at?

A.Physical layer

B.Data link layer

C.Network layer

D.Transport layer

5. (Single Choice) PAP requires ( )-way hand-shake.

A.Two

B.Three

C.Four

D.One

6. (Single Choice) Which of the following protocols requires three-way handshake and allows only username to be transmitted through network while keeping the password secret?

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A.PAP

B.CHAP

C.MD5

D.TCP

7. (Single Choice) Which of the following descriptions about PAP and CHAP is correct?

A.PAP authentication requires three-way handshake

B.CHAP authentication requires two-way handshake

C.PAP authentication uses plain text to send authentication message

D.CHAP authentication uses plain text to send authentication message

8. (Single Choice) On VRP platform, which of the following commands is used to configure PPP authentication method as PAP?

A.ppp pap

B.ppp chap

C.ppp authentication-mode pap

D.ppp authentication-mode chap

9. (Single Choice) Which layer is the PPP protocol located in the TCP/IP protocol stack?

A.Physical Layer

B.Data Link Layer

C.Network Layer

D.Transport Layer

10. (Single Choice) In the PPP protocol, CHAP authentication involves exchange of three types of packets at different times, namely, Challenge, Response, and Success/Failure packets.

T.True

F.False

11. (Multiple Choice) Which of the following PPP protocols are classified into the NCP protocol? (Select 2 Answers)

A.IPv6CP

B.ICMP

C.IPCP

D.TCP

12. (Single Choice) The PPP protocol provides a standard method of transmitting datagrams of different protocols on a point-to-point link. It is a point-to-point communication protocol widely used at the present time.

T.True

F.False

13. (Single Choice) After a PPP connection is established, the VRP platform sends Echo-Request packets at the interval of ( ) seconds by default.

A.1

B.5

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C.10

D.60

14. (Single Choice) What function does the NCP protocol can provide for a PPP connection?

A.Error detection

B.User identifier authentication

C.Carrying of “multiple” Layer 3 protocols

D.Congestion control

15. (Single Choice) In the PPP protocol, CHAP authentication involves exchange of three types of packets at different times. To match the Request packet with a Reply packet, each packet contains an Identifier field. In each authentication process, all the packets use the same Identifier information.

T.True

F.False

16. (Multiple Choice) Which of the following components are defined by PPP protocol? (Select 3 Answers)

A.Data encapsulation

B.Data encryption

C.Link Control Protocol(LCP)

D.Network Control Protocol(NCP)

17. (Multiple Choice) PPP protocol consists of three types of protocols, they are ( ). (Select 3 Answers)

A.PPPOE

B.LCP(Link Control Protocol)

C.NCP(Network Control Protocol)

D.PPP extension protocol

18. (Single Choice) RTA connects with RTB through interface Serial0. The configuration on RTA is as follow:

[RTA]aaa

[RTA-aaa]local-user huawei password simple quidway

[RTA-aaa]local-user huawei service-type ppp

[RTA]interface Serial 0

[RTA-Serial0]link-protocol ppp

[RTA-Serial0]ppp authentication-mode pap

[RTA-Serial0]ip address 10.1.1.1 30

The configuration on RTB is as follow:

[RTB]interface Serial 0

[RTB-Serial0]link-protocol ppp

[RTB-Serial0]ppp pap local-user huawei password simple hello

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[RTB-Serial0]ip address 10.1.1.2 30

With the configuration above, RTA and RTB are able to communicate with each other.

T.True

F.False

19. (Single Choice) One of the significant features of the PPP protocol is the authentication function. With this function, the two ends of a link can negotiate with each other to use which authentication protocol and then perform authentication. A PPP connection is established only when the authentication is successful.

T.True

F.False

20. (Multiple Choice) Which of the following statements are true? (Select 2 Answers)

A.LCP negotiates on authentication information.

B.CHAP performs authentication by exchanging packets twice.

C.IPCP can be used to negotiate on IP addresses and compress information.

D.PAP is used for user authentication

21. (Multiple Choice) Which of the following functions does LCP provide? (Select 3 Answers)

A.Negotiates to establish links.

B.Negotiates to use which Layer 3 protocols.

C.Disconnects a link when the idle timer of the link expires.

D.Tests a link to check the link quality and thus to determine whether a link can be established.

22. (Multiple Choice) Which of the following packets belong to CHAP authentication protocol? (Select 4 Answers)

A.Challenge

B.Request

C.Response

D.Success

E.Failure

23. (Single Choice) RTA connects with RTB through interface Serial0. The configuration on RTA is as follow:

[RTA]aaa

[RTA-aaa]local-user huawei password cipher hello

[RTA-aaa]local-user huawei service-type ppp

[RTA]interface Serial 0

[RTA-Serial0]link-protocol ppp

[RTA-Serial0]ppp authentication-mode chap

[RTA-Serial0]ip address 10.1.1.1 30

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The configuration on RTB is as follow:

[RTB]interface Serial 0

[RTB-Serial0]link-protocol ppp

[RTB-Serial0]ppp chap user huawei

[RTB-Serial0]ppp chap password cipher hello

[RTB-Serial0]ip address 10.1.1.2 30

With the configuration above, RTA and RTB are able to communicate with each other.

T.True

F.False

24. (Multiple Choice) When you configure PPP authentication method as PAP, which of the following operations are necessary? (Select 3 Answers)

A.Add the user name and password of the authenticated party to local user list

B.Configure the encapsulation type of the interface connected to the peer as PPP.

C.Configure PPP authentication method as CHAP

D.On the authenticated party end, configure the user name and password that are sent to authenticator

25. (Single Choice) In the PPP protocol, the dynamic negotiation is the same as the static negotiation in the IPCP flow. That is, in either dynamic or static negotiation, allocation of IP addresses is completed after one Config-Request dialog.

T.True

F.False

26. (Single Choice) How many bytes does the Maximum Receive Unit (MRU) of PPP consist of by default?

A.1024

B.1500

C.1518

D.8096

27. (Single Choice) Which of the following protocol is required in negotiation to compress the TCP/IP packet header for a PPP link?

A.LCP

B.PAP

C.IPCP

D.CHAP

28. (Multiple Choice) In network switching technology, circuit switching technology is based on the PSTN switching technology. Which of the following statements about circuit switching are correct? (Select 3 Answers)

A.Low delay

B.Transparent transmission, which means no modification on user data

C.Fixed bandwidth, utilization rate for the network resource is high

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D.Ensure the Quality of service

29.2 Reference Answer

1. F	2.T	3.T	4.B	5.A	6.B	7.C	8.C	9.B
10.T	11.AC	12.T	13.C	14.C	15.T	16.ACD	17.BCD	
18.F	19.T	20.CD	21.ACD	22.ACDE		23.T	24.ABD	
25.F	26.B	27.C	28.ABD					

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30 Frame Relay Principles

30.1 Question

1. (Multiple Choice) Frame Relay operates at data link layer, which of the following are the functions of Frame Relay? (Select 3 Answers)

A. Statistical time division multiplexing

B.Transparent transmission of the frame

C.Error detection

D.Retransmission

2. (Multiple Choice) Which of the following DLCI numbers are used by Frame Relay LMI ? (Select 2 Answers)

A.0

B.16

C.1007

D.1023

3. (Multiple Choice) Which of the following statements about Frame Relay are true? (Select 4 Answers)

A.Frame Relay is a kind of fast packet switching technology that uses the simplified method to transmit and switch the data unit on data link layer.

B.Frame Relay implements the functions of physical layer and network layer.

C.In Frame Relay, flow control and error correction are implemented by higher-layer protocol and application services. This simplifies the protocols operation between devices.

D.Frame Relay adopts virtual circuit technology thus network resources are fully utilized

E.High throughput, low delay, and suitable for burst data

4. (Multiple Choice) On Frame Relay, VC (Virtual Circuit) is a logical circuit between two network devices. It can be divided into ( ) (Select 2 Answers)

A.SVC(Static Virtual Circuit)

B.TVC(temporary Virtual Circuit)

C.PVC(Permanent Virtual Circuit)

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D.SVC(Switching Virtual Circuit)

5. (Multiple Choice) A Frame Relay network consists of 12 routers, how many PVCs are built in a full mesh network?

A.6

B.132

C.66

D.12

6. (Multiple Choice) Frame Relay has congestion avoidance mechanism, which of the following fields are used for congestion avoidance? (Select 3 Answers)

A.BECN

B.FECN

C.DLCI

D.DE

E.C/R

7. (Multiple Choice) When configure Frame Relay sub-interface on VRP platform, which of the following sub interfaces type are available? (Select 2 Answers)

A.P2P

B.NBMA

C.P2MP

D.Broadcast

8. (Multiple Choice) What are functions of Inverse ARP? (Select 2 Answers)

A.Find the hardware address of the device according to its IP address

B.Find the DLCI number of the connection

C.Find the IP address of the remote device based on virtual circuit in Frame Relay network

D.Establish the mapping relationship between IP address of remote device and DLCI

9. (Single Choice) Frame Relay implements the function of ( )only.

A.Data Link Layer and Network layer

B.Network layer and Transport Layer

C.Transport Layer and Session Layer

D.Physical Layer and Data Link layer

10. (Single Choice) On a port running frame relay, an MAP table corresponds to a logical port. Different logical ports have different MAP tables.

T.Truer

F..False

11. (Single Choice) Which port on a UNI-side host or terminal is used to connect to frame relay network?

A.DTE

B.DCE

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C.NNI

D.None of the above

12. (Single Choice) The default format for encapsulating a frame relay protocol is IETF.

T.Truer

F..False

13. (Multiple Choice) What kind of LMI protocols does VRP support? (Select 3 Answers)

A.Q933a

B.Ansi

C.Cisco

D.Nonstandard

14. (Multiple Choice) Which of the following parameters are defined in Frame Relay? (Select 3 Answers)

A.CIR (Committed Information Rate)

B.TTL (Time to Live)

C.BE (Excess Burst Size)

D.BC (Committed Burst Size)

15. (Single Choice) When you configure Frame Relay on Quidway routers, you can configure Inverse ARP instead of static address mapping because the function of Inverse ARP is to provide dynamic address mapping.

T.Truer

F..False

16. (Single Choice) Which of the following commands is used to enable dynamic address mapping protocol in the interface encapsulated with Frame Relay?

A.Fr inarp

B.Fr reverse-arp

C.Inverse-arp

D.Reverse-arp

17. (Single Choice) Frame relay point-to-multipoint sub-port can connect “multiple” remote nodes together through a PVC.

T.Truer

F..False

18. (Single Choice) What does the number "30" in the following frame relay configuration command stand for?

[RTB-Serial0\]fr map ip 10.1.1.2 30

A.Subnet mask

B.DLCI

C.Cost

D.Weight

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19. (Multiple Choice) Which of the following parameters must be specified when configure static mapping for Frame Relay network? (Select 2 Answers)

A.Local DLCI

B.Remote DLCI

C.Local network layer protocol address

D.Remote network layer protocol address

20. (Multiple Choice) The standards for Frame Relay encapsulation that Huawei router supports include ( ). (Select 2 Answers)

A.IETF

B.ANSI

C.Q.933a

D.Nonstandard

21. (Single Choice) The 10.1.1.2 IP address in the returned result of the frame relay command represents the IP address of the local device.

[RTA\]dis fr map-info

Map Statistics for interface Serial0 (DTE)

DLCI = 100, IP INARP 10.1.1.2, Serial0

create time = 2007/06/04 17:34:59, status = ACTIVE

encapsulation = ietf, vlink = 20, broadcast

T.Truer

F..False

22. (Multiple Choice) The distance vector routing protocol uses a split horizon mechanism. This makes a frame relay node connecting “multiple” peer devices together fail to transmit the route information to all peer devices. Which of the following methods can solve this problem? (Select 3 Answers)

A.Use “multiple” physical ports to connect “multiple” adjacent nodes together.

B.Use “multiple” logical sub-ports of a physical port.

C.Disable the split horizon function and take into account the risk resulting from a loop.

D.Ignore the risk resulting from a routing loop because no routing loop occurs in any case.

30.2 Reference Answer

1. ABC	2.AD	3.ACDE	4.CD	5.C	6.ABD	7.AC	
8.CD	9.D	10.T	11.A	12.T	13.ABD	14.ACD	15.T
16.A	17.F	18.B	19.AD	20.AD	21.F	22.ABC	

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31 Establishing DSL Networks with PPPoE

31.1 Question

1. (Single Choice) What function does the NCP protocol can provide for a PPP connection?

A. Error detection

B. User identifier authentication

C. Carrying of “multiple” Layer 3 protocols

D. Congestion control

2. (Single Choice) In the PPP protocol, CHAP authentication involves exchange of three types of packets at different times. To match the Request packet with a Reply packet, each packet contains an Identifier field. In each authentication process, all the packets use the same Identifier information.

T.True

F.False

3. (Multiple Choice) Which of the following components are defined by PPP protocol?

A. Data encapsulation

B. Data encryption

C. Link Control Protocol(LCP)

D. Network Control Protocol(NCP)

4. (Multiple Choice) PPP protocol consists of three types of protocols, they are ( ).

A. PPPOE

B. LCP(Link Control Protocol)

C. NCP(Network Control Protocol)

D. PPP extension protocol

5. (Single Choice) One of the significant features of the PPP protocol is the authentication function. With this function, the two ends of a link can negotiate with each other to use which

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authentication protocol and then perform authentication. A PPP connection is established only when the authentication is successful.

T.True

F.False

6. (Single Choice) In the PPP protocol, which of the following encryption algorithms is used by CHAP?

A. DES

B. MD5

C. AES

D. None

7. (Multiple Choice) Which of the following packets belong to CHAP authentication protocol?

A. Challenge

B. Request

C. Response

D. Success

E. Failure

8. (Multiple Choice) When you configure PPP authentication method as PAP, which of the following operations are necessary?

A. Add the user name and password of the authenticated party to local user list

B. Configure the encapsulation type of the interface connected to the peer as PPP.

C. Configure PPP authentication method as CHAP

D. On the authenticated party end, configure the user name and password that are sent to authenticator

9. (Single Choice) In the PPP protocol, the dynamic negotiation is the same as the static negotiation in the IPCP flow. That is, in either dynamic or static negotiation, allocation of IP addresses is completed after one Config-Request dialog.

T.True

F.False

10. (Single Choice) How many bytes does the Maximum Receive Unit (MRU) of PPP consist of by default?

A. 1024

B. 1500

C. 1518

D. 8096

11. (Single Choice) Which of the following protocol is required in negotiation to compress the TCP/IP packet header for a PPP link?

A. LCP

B. PAP

C. IPCP

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D. CHAP

12. (Single Choice) In the Internet, two technologies are widely used to access services and support both dial-up connections and connections through private lines. One of them is ADSL. What is the other technology?

A.LAN

B.WAN

C.MSTP

D.Metro

31.2 Reference Answer

1. C	2.T	3.ACD	4.BCD	5.T	6.B	7.ACDE	8.ABD
9.F	10.B	11.C	12.A				

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32 Network Address Translation

32.1 Question

1. (Multiple Choice) Which of the following statements are correct about NAT?

A. NAT is the abbreviation for "Network Address Translation"

B. NAT is used for translation between private network address and public network address.

C. When hosts inside a private network access the outside network, NAT is not needed at all.

D. NAT provides an effective way to solve the problem of insufficient IP address.

2. (Single Choice) Which of the following technologies can allow a host with IP address 10.0.0.1 to access the internet?

A. Static route

B. Dynamic route

C. Route import

D. NAT

3. (Single Choice) Which of the following problems can be solved by NAT?

A. Saving Internet public address

B. Improving the forwarding performance of routers

C. Enhancing the security of data transmission

D. Protecting computers from viruses attacks

4. (Single Choice) What type of network addresses can be translated by NAT?

A. IP

B. IPX

C. AppleTalk

D. DECNET

5. (Single Choice) Which of the following problems can be solved by NAT?

A.Saving Internet public address

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B.Improving the forwarding performance of routers

C.Enhancing the security of data transmission

D.Protecting computers from viruses attacks

6. (Multiple Choice) What type of network addresses can be translated by NAT?

A.IP

B.IPX

C.AppleTalk

D.DECNET

32.2 Reference Answer

1. ABD 2.D 3.A 4.A 5.A 6.A

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33 Establishing Enterprise Radio Access Network

33.1 Question

1. (Single Choice) Which of the following is a typical WWAN?

A.2G network

B.3G network

C.4G network

D.All of the above

33.2 Reference Answer

1. D

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34 Access Control Lists

34.1 Question

1. (Single Choice) This type of firewall directly obtains the information such as source IP address, destination IP address, source TCP/UDP port, destination TCP/UDP port and protocol number in the packet header and filters the packets based on the defined policy. Which of the following is the firewall described above

A. Packet filtering firewall
B. Proxy firewall
C. Stateful firewall
D. Link-layer firewall

2. (Multiple Choice) Which of the following are the disadvantages of packet filtering firewall?

A. Complicated configuration and can result in a lot of problems due to mis-configuration
B. As the complexity and length of ACL increase, its performance will degrade greatly
C. Simple configuration
D. Low overhead, high processing speed

3. (Multiple Choice) Packet filtering firewall filters packet based on quintuplet. Which of the following are the components of quintuplet?

A. IP address
B. Protocol number
C. Port number
D. Application program
E. MAC address

4. (Multiple Choice) What of the following statements is correct regarding access control list types and ranges?

A. A basic ACL value ranges from 1000-2999
B. An advanced ACL value ranges from 3000-4000
C. A layer 2 ACL value ranges from 4000-4999

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D. An interface ACL value ranges 1000-2000

5. (Single Choice) Which of the following parameters is not used by Advanced ACL?

A. source interface
B. destination port number
C. protocol number
D. time-range

6. (Multiple Choice) [RTA]acl 2002

[RTA-acl-basic-2002]rule permit source 20.1.1.1 0

[RTA-acl-basic-2002]rule permit source 30.1.1.1 0

Refer to the configuration output. A network administrator configured the ACL on router RTA, as shown. Which of the following statements regarding the rule order are correct? (Two Answers).

A. The rule-number of the first rule is 1
B. The rule-number of the first rule is 5
C. The rule-number of the second rule is 2
D. The rule-number of the second rule is 10

7. (Multiple Choice) Following a failure of services in the network, an administrator discovered that the configuration in one of the enterprise routers had been changed. What actions can be taken by the administrator to prevent further changes? (Three Answers)

A. The administrator should limit access by setting the login privilege of users to 0.
B. The administrator should configure AAA to manage user authorization on the router.
C. The administrator should configure an ACL to allow only the administrator to manage the router.
D. The administrator should configure port-security on the router

34.2 Reference Answer

1. A 2.AB 3.ABC 4.C 5.A 6.BD 7.ABC

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35 AAA

35.1 Question

1. (Multiple Choice) Assume that a user is Telneting a router. In this case, which of the following statements are true?

A.The router authenticates the user password.

B.The router may perform local authentication based on AAA.

C.The router may perform remote authentication based on AAA.

D.The router does not authenticate the user.

2. (Multiple Choice) An administrator currently manages AR2200 devices in the network through a single password, however the company wishes to introduce another two administrators and provide unique user credentials and privilege levels for telnet access to the network devices. What action can be taken? (Three Anwsers)

A. Configure three users under the AAA-view, and assign each a different password.

B. The authentication mode must be changed to AAA.

C. Each administrator must be assigned a privilege level.

D. A public IP address must be assigned to each user for telnet access.

3. (Multiple Choice) Which of the following authentication methods are supported for Telnet users? (Select 3 Answers)

A. Password authentication

B. AAA local authentication

C. MD5 authentication

D. No authentication

4. (Single Choice) The users who log on the router through Telnet are not permitted to configure IP address. What is the possible reason?

A. Communication failures occur between the user and the router.

B. The authentication mode of Telnet is set incorrectly.

C. Privilege level of Telnet is set incorrectly.

D. SNMP parameters are set incorrectly.

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35.2 Reference Answer

1. ABCD 2.ABC 3.ABD 4.C

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36 Securing Data with IPsec VPN

36.1 Question

1. (Multiple Choice) A virtual private network (VPN) can be divided into different parts by layer. What are these parts?

A.L2VPN

B.L3VPN

C.VPDN

D.GRE VPN

2. (Multiple Choice) If AH and ESP are both required to protect data streams between IPsec peers, how many Security Associations (SA) are required in total?

A.1

B.2

C.3

D.4

3. (Single Choice) Two routers establish an IPsec tunnel, which of the following does not need to be the same on both peering devices?

A. Encapsulation mode

B. Transform mode

C. Proposal name

D. authentication algorithm

4. (Multiple Choice) The data is transmitted using IPsec tunnel mode. The fields of which headers will be authenticated?

A. TCP and Data

B. Origin IP, TCP and Data

C. AH, Origin IP, TCP and Data

D. The fields of all headers

5. (Multiple Choice) IPsec VPN uses ESP to encrypt which fields ?

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A. TCP, Data and ESP Trailer

B. ESP, TCP and Data

C. ESP, TCP, Data and ESP Trailer

D. ESP, TCP, Data, ESP Trailer and ESP Auth

36.2 Reference Answer

1.ABC 2.D 3.C 4.C 5.A

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37 Generic Routing Encapsulation

37.1 Question

1. (Multiple Choice) RTA and RTB have established a GRE tunnel, but only RTA has enabled the keepalive function. When RTB receive a keepalive message from RTA, how will RTB respond?

A. RTB will discard the keepalive message.

B. RTB willl record receipt of the keepalive message but won't reply

C. RTB will send a keepalive in response.

D. RTB will send a keepalive reply and begin to actively send keepalive messages.

2. (Multiple Choice) Two hosts communicate through a GRE tunnel. When the GRE tunnel is up, the network administrator configures a static route on RTA to route packets to Host B. Which of the following commands will achieve this?

A. ip route-static 10.1.2.0 24 GigabitEthernet0/0/1

B. ip route-static 10.1.2.0 24 200.2.2.1

C. ip route-static 10.1.2.0 24 200.1.1.1

D. ip route-static 10.1.2.0 24 tunnel 0/0/1

37.2 Reference Answer

1. C 2.D

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38 Simple Network Management Protocol

38.1 Question

1. (Multiple Choice) which version of SNMP supports data encryption?

A. SNMPv1
B. SNMPv2
C. SNMPv2c
D. SNMPv3

2. (Single Choice) Which of the following statements regarding traps in SNMP is correct?

A. Traps are transmitted using UDP to destination port number 162.
B. Traps are transmitted using UDP to destination port number 161.
C. Traps are transmitted using TCP to destination port number 162.
D. Traps are transmitted using TCP to destination port number 161.

3. (Single Choice) The Network Management Station uses SNMP to manage devices, which SNMP message is sent when an SNMP registered abnormal event occurs?

A. get-response
B. set-request
C. trap
D. get-request

4. (Multiple Choice) eSight supports which of the following SNMP versions in order to manage devices? (Three Answers).

A. SNPMv1
B. SNPMv2
C. SNPMv2c
D. SNPMv3

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38.2 Reference Answer

1. D 2.A 3.C 4.ACD

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39 eSight Network Management Solutions

39.1 Question

1. (Multiple Choice) Which of the following descriptions regarding eSight is not correct?

A. eSight is used to monitor and manage enterprise networks.

B. eSight supports only Huawei devices

C. eSight supports WLAN management and monitoring of hotspot coverage.

D. eSight supports the backup of configuration files and network traffic analysis.

39.2 Reference Answer

1. B

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40 Introducing IPv6 Networks

40.1 Question

1. (Multiple Choice) Which of the following formats represent an accurate condensing of the IPv6 address 2031:0000:720C:0000:0000:09E0:839A:130B? (Two Answers).

A. 2031:0:720C:0:0:9E0:839A:130B

B. 2031:0:720C:0:0:9E:839A:130B

C. 2031::720C::9E0:839A:130B

D. 2031:0:720C::9E0:839A:130B

2. (Multiple Choice) Which of the following IPv6 addresses can be configured on a router's interface? (Two Answers).

A. fe80:13dc::1/64

B. ff00:8a3c::9b/64

C. ::1/128

D. 2001:12e3:1b02::21/64

3. (Single Choice) The IPv6 address achitecture does not include which of the following address types?

A. unicast

B. multicast

C. broadcast

D. anycast

4. (Multiple Choice) Which of the following descriptions regarding IPv6 addresses are correct? (Two Answers)

A. IPv6 addresses are 64 bits in length.

B. IPv6 addresses are 128 bits in length.

C. IPv6 extension headers are processed in order.

D. IPv6 extension headers are processed randomly.

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5. (Single Choice) Interface G0/0/1 on RTA contains a MAC address of 00e0-fc03-aa73 and is configured with the IPv6 address 2001::2E0:FCFF:FE03:AA73. Which method is most likely to have been used to configure the interface IPv6 address?

A. DHCPv6

B. Auto-link

C. ARP

D. EUI-64

40.2 Reference Answer

1. AD 2.AD 3.C 4.BC 5.D

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41 IPv6 Routing Technologies

41.1 Question

1. (Single Choice) In a small network suppporting IPv6, a network administrator wishes implement RIPng. Which of the following commands should be used to enable this protocol?

A. [RTA-GigabitEthernet0/0/0]ripng 1 enable

B. [RTA]ripng 1 enable

C. <RTA>ripng 1 enable

D. [RTA-ripng-1]ripng 1 enable

2. (Single Choice) Interface G0/0/1 on RTA contains a MAC address of 00e0-fc03-aa73 and is configured with the IPv6 address 2001::2E0:FCFF:FE03:AA73. Which method is most likely to have been used to configure the interface IPv6 address?

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C. ARP

D. EUI-64

3. (Single Choice) In a small network suppporting IPv6, a network administrator wishes implement RIPng. Which of the following commands should be used to enable this protocol?

A. [RTA-GigabitEthernet0/0/0]ripng 1 enable

B. [RTA]ripng 1 enable

C. <RTA>ripng 1 enable

D. [RTA-ripng-1]ripng 1 enable

4. (Multiple Choice) In a network supporting IPv6, OSPF no longer supports which feature?

A. multiple areas

B. Router-ID

C. authentication

D. multicast updates

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5. (Single Choice) Two routers are configured with OSPFv3. OSPFv3 is enabled on all interfaces of each router. Which of the following is true in the event that the network administrator does not configure a Router-ID?

A. The IP address of the loopback 0 interface will be used as the router ID

B. The IP address of the loopback 1 interface will be used as the router ID

C. The IP address of interface G0/0/0 will be used as the router ID

D. No router ID will be assigned to the router.

41.2 Reference Answer

1. A 2.D 3.A 4.C 5.D

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42 IPv6 Application Services DHCPv6

42.1 Question

1. (Multiple Choice) A DHCP Unique Identifier (DUID) in DHCPv6 can be configured in VRP using which formats? (Two Answers).

A. DUID-LL

B. DUID-LLT

C. DUID-EN

D. DUID-LLC

42.2 Reference Answer

1. AB

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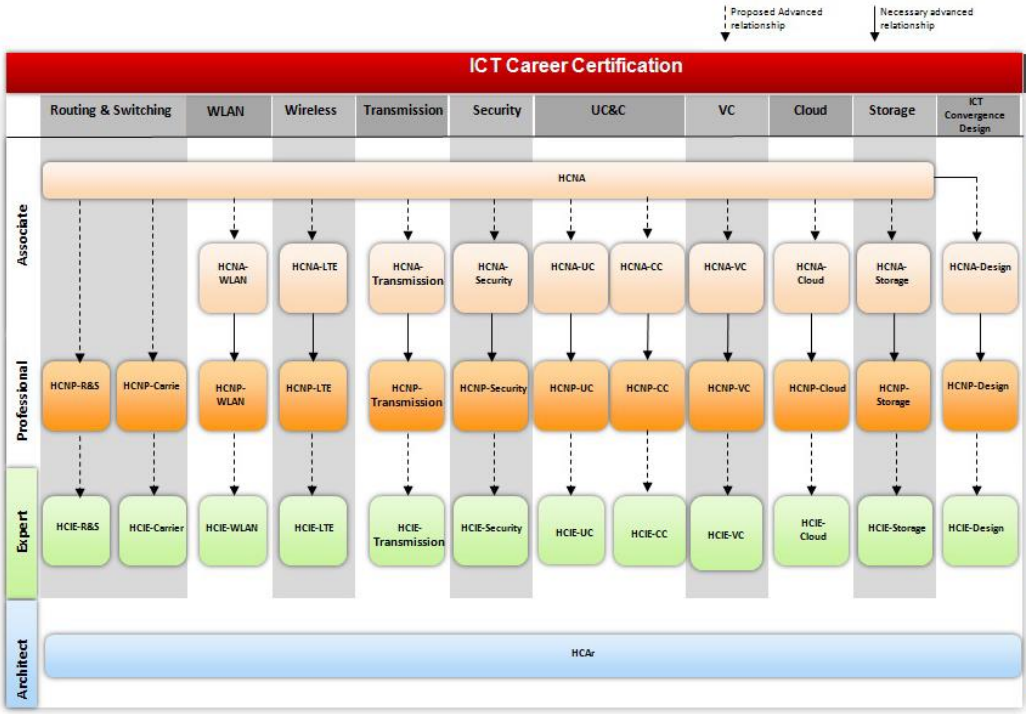

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