1.1  In the following options, which does not define in protocol? ( D )

A    the format of messages exchanged between two or more communicating entities

B     the order of messages exchanged between two or more communicating entities

C     the actions taken on the transmission of a message or other event

D    the transmission signals are digital signals or analog signals

1.2  In the following options, which is defined in protocol? ( A )

A    the actions taken on the transmission and/or receipt of a message or other event

B    the objects exchanged between communicating entities

C    the content in the exchanged messages

D    the location of the hosts

1.3  An application can rely on the connection to deliver all of its data without error and in the proper order. The sentence describes (C  ).

A   flow control

B   congestion-control

C   reliable data transfer

D   connection-oriented service

1.4  The Internet’s connection-oriented service has a name, it is ( A ).

A   TCP

B   UDP

C   TCP/IP

D   IP

1.5  The Internet’s connectionless service is called ( B ).

A   TCP

B   UDP

C   TCP/IP

D    IP

1.6  Which of the following nodes belongs to the network core?C

A. a Web Server                                            B. a Host with Win2003 Server

C. a Router with NAT service                      D. a Supernode on Skype Network

1.7  In the Internet, the equivalent concept to end systems is (  )A.

A    hosts

B     servers

C     clients

D    routers

1.8  In the Internet, end systems are connected together by ( C ).

A    copper wire

B     coaxial cable

C     communication links

D    fiber optics

1.9  End systems access to the Internet through its (C  ).

A    modems

B     protocols

C     ISP

D    sockets

1.10  In the following options, which belongs to the network core? ( B )

A   end systems

B   routers

C   clients

D   servers

1.11  End systems, packet switches, and other pieces of the Internet, run ( D ) that control the sending and receiving of information within the Internet.

A    programs

B     processes

C     applications

D    protocols

1.12  The internet allows ( D ) running on its end systems to exchange data with each other.

A    clients applications

B     server applications

C     P2P applications

D    distributed applications

1.13  The protocols of various layers are called ( A ).

A    the protocol stack

B     TCP/IP

C     ISP

D    network protocol

1.14  In the OSI reference model, the upper layers of the OSI model are, in correct orderD

A      Session, application, presentation

B     Session, presentation, application

C      Session, application, presentation, physical

D      Application, presentation, session

1.15  The lower layers of the OSI model are, in correct orderD

A        physical, system, network, logical

B        physical, logical, network, system

C        physical, transport, network, data link

D        physical, data link, network, transport

1.16  The Internet Protocol (IP) generally corresponds to which OSI layer?A

A        Network (layer three)

B        Transport (layer four)

C       Data link (layer two)

D        Session (layer five)

1.17  What layer of the OSI model is designed to perform error detection functions?B

A        Physical

B        Data link

C        Network

D        transport

1.18  Which of the following protocol layers is not explicitly part of the Internet Protocol Stack? \_\_\_\_\_B\_\_\_\_

A. application layer                                              B. session layer

C. data link layer                                                  D. transport layer

1.19  The 5-PDU is called\_\_A\_

A. message                                                           B. segment

C. datagram                                                         D. frame

1.20  The Internet’s network layer is responsible for moving network-layer packets known as B(  ) from one host to another.

A    frame

B     datagram

C     segment

D    message

1.21  Transport-layer packets are called:B

A. message                 B. segment                 C. datagram               D. frame

1.22  The units of data exchanged by a link-layer protocol are called (  A).

A    Frames

B     Segments

C     Datagrams

D    bit streams

1.23  There are two fundamental approaches to building a network core, ( B ) and packet switching.

A   electrical current switching

B   circuit switching

C   data switching

D   message switching

1.24  Datagram networks and virtual-circuit networks differ in that ( C ).

A    datagram networks are circuit-switched networks, and virtual-circuit networks are packet-switched networks.

B     datagram networks are packet-switched networks, and virtual-circuit networks are circuit-switched networks.

C     datagram networks use destination addresses and virtual-circuit networks use VC. numbers to forward packets toward their destination.

D    datagram networks use VC. numbers and virtual-circuit networks use destination addresses to forward packets toward their destination.

1.25  (A  ) means that the switch must receive the entire packet before it can begin to transmit the first bit of the packet onto the outbound link.

A    Store-and-forward transmission

B     FDM

C     End-to-end connection

D    TDM

1.26  In ( C ) networks, the resources needed along a path to provide for communication between the end system are reserved for the duration of the communication session.

A   packet-switched

B   data-switched

C   circuit-switched

D   message-switched

1.27  In ( A ) networks, the resources are not reserved; a session’s messages use the resources on demand, and as a consequence, may have to wait for access to communication link.

A   packet-switched

B   data-switched

C   circuit-switched

D   message-switched

1.28  In a circuit-switched network, if each link has *n* circuits, for each link used by the end-to-end connection, the connection gets (  A) of the link’s bandwidth for the duration of the connection.

A   a fraction 1/*n*

B   all

C   1/2

D   n times

1.29  For (C  ), the transmission rate of a circuit is equal to the frame rate multiplied by the number of bits in a slot.

A   CDMA

B   packet-switched network

C   TDM

D   FDM

1.30  The network that forwards packets according to host destination addresses is called (  D) network.

A   circuit-switched

B   packet-switched

C   virtual-circuit

D   datagram

1.31  The network that forwards packets according to virtual-circuit numbers is called ( C ) network.

A   circuit-switched

B   packet-switched

C   virtual-circuit

D   datagram

1.32  The time required to propagate from the beginning of the link to the next router is (  C).

A   queuing delay

B   processing delay

C   propagation delay

D   transmission delay

1.33  Processing delay does not include the time to (B  ).

A    examine the packet’s header

B     wait to transmit the packet onto the link

C     determine where to direct the packet

D    check bit-error in the packet

1.34  In the following four descriptions, which one is correct? (  C)

A    The traffic intensity must be greater than 1.

B     The fraction of lost packets increases as the traffic intensity decreases.

C     If the traffic intensity is close to zero, the average queuing delay will be close to zero.

D    If the traffic intensity is close to one, the average queuing delay will be close to one.

1.35  Suppose, *a* is the average rate at which packets arrive at the queue, *R* is the transmission rate, and all packets consist of *L* bits, then the traffic intensity is ( B ),

A    *LR*／*a*

B    *La*／*R*

C    *Ra*／*L*

D    *LR*／*a*

1.36  Suppose there is exactly one packet switch between a sending host and a receiving host. The transmission rates between the sending host and the switch and between the switch and the receiving host are *R*1 and *R*2, respectively. Assuming that the switch uses store-and-forward packet switching, what is the total end-to-end delay to send a packet of length *L*? (Ignore queuing delay, propagation delay, and processing delay.) ( A )

A   *L*/*R*1＋*L*/*R2*

B   *L*/*R*1

C   *L*/*R*2

D   none of the above

1.37  We are sending a 30 Mbit MP3 file from a source host to a destination host. Suppose there is only one link between source and destination and the link has a transmission rate of 10 Mbps. Assume that the propagation speed is 2 \* 108 meters/sec, and the distance between source and destination is 10,000 km. Also suppose that message switching is used, with the message consisting of the entire MP3 file. How many bits will the source have transmitted when the first bit arrives at the destination?C

A. 1 bit   B. 30,000,000 bits  C. 500,000 bits   D. none of the above

1.38  In the following entries, which is not a kind of access network?(D  )

A   residential access

B   company access

C   wireless access

D   local access

1.39  The following technologies may be used for residential access, exceptD

A. HFC                      B. DSL                       C. Dial-up modem           D. FDDI

1.40  Which kind of media is not a guided media? (  D)

A    twisted-pair copper wire

B     a coaxial cable

C     fiber optics

D    digital satellite channel