BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Science (Honours) in Advanced Networking & Cyber Security

Course Name – Computer Networks

Course Code - BNCSC201

(Semester II)

Time allotted : 1 Hrs.15 Min. **Full Marks : 60**

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question) 1 x 60=60

Choose the correct alternative from the following :

(1) Flow control is used to prevent

a) overflow of sender buffer
b) overflow of receiver
c) collision between sender and receiver
d) underflow of sender and receiver

(2) Stop-and wait is a _____ technique

a) Line discipline
b) Flow control
c) Error control
d) Session management

(3) What is the main disadvantage of stop-and-wait flow control?

a) Unreliable
b) Inefficient
c) Attenuation
d) Dropped packets

(4) The 4 byte IP address consists of

a) network address
b) host address
c) both network address & host address
d) neither network address nor host address

(5) Which one of the following routing algorithms can be used for network layer design?

a) shortest path algorithm
b) distance vector routing
c) link state routing
d) all of the mentioned

(6) In classless addressing, there are no classes but addresses are still granted in :

a) IPs
b) Blocks
c) Codes
d) Sizes

(7) In Unicast Routing, Dijkstra algorithm creates a shortest path tree from a

a) Graph
b) Tree
c) Network
d) Link

(8) LSP stands for

a) Link Stable Packet
b) Link State Packet

c) Link State Protocol
d) Link State Path

(9) IPv6 addressed have a size of

a) 32 bits
b) 64 bits
c) 128 bits
d) 256 bits

(10) What is the maximum number of IP addresses that can be assigned to hosts on a local sub net that uses the 255.255.255.224 subnet mask?

a) 14
b) 15
c) 16
d) 30

(11) Open Shortest Path First (OSPF) is also called as _____

a) Link state protocol
b) Error-correction protocol
c) Routing information protocol
d) Distance Vector protocol

(12) In OSPF header, which field is used to detect errors in the packet?

a) Type
b) Area ID
c) Authentication type
d) Checksum

(13) Identify the IP address in the class B–

a) 125.123.123.2
b) 191.23.21.54
c) 192.128.32.56
d) 10.14.12.34

(14) Network congestion occurs

a) in case of traffic overloading
b) when a system terminates
c) when connection between two nodes terminate s
d) none of the mentioned

(15) Connection establishment in TCP is done by which mechanism?

a) Flow control
b) Three-Way Handshaking
c) Forwarding
d) Synchronisation

(16) Which layer provides the services to the user?

a) Physical layer
b) Data link layer
c) Network layer
d) Application layer

(17) In layer hierarchy as the data packet moves downwards from the upper to the lower layer s, headers are

a) Added
b) Removed
c) Rearranged
d) Modified

(18) Which of these is not a network edge device?

a) PC
b) Smartphones
c) Servers
d) Switch

(19) In computer network nodes are

a) the computer that originates the data
b) the computer that routes the data
c) the computer that terminates the data
d) all of the mentioned

(20) A _____ is a device that forwards packets between networks by processing the routi ng information included in the packet.

a) Bridge
b) Firewall
c) Router
d) Repeater

(21) Which one of the following extends a private network across public networks?

a) local area network
b) virtual private network
c) enterprise private network
d) storage area network

(22) The functionalities of presentation layer includes

a) Data compression
b) Data encryption
c) Data decryption
d) All of the mentioned

(23) Physical or logical arrangement of network is called_____
a) Topology
b) Routing
c) Networking
d) None of the mentioned

(24) In which topology there exists a central controller or hub?
a) Star
b) Mesh
c) Ring
d) Bus

(25) Data communication system within a building or campus is called _____
a) PAN
b) LAN
c) WAN
d) MAN

(26) OSI is the abbreviation of
a) open system interconnection
b) operating system interface
c) optical service implementation
d) none of the mentioned

(27) TCP/IP model was developed _____ the OSI model.
a) prior to
b) after
c) simultaneous to
d) none of the mentioned

(28) Switches function in which layer(s) of OSI model
a) Physical layer
b) Data link layer
c) Network layer
d) Both a. and b.

(29) The topology with highest reliability is known as
a) mesh
b) star
c) ring
d) bus

(30) Bridges/Switches function in which layer(s)?
a) Physical layer
b) Data link layer
c) Network layer
d) Both a. and b.

(31) Gateways in OSI model can function all the way up to
a) Physical layer
b) Data link layer
c) Network layer
d) Application layer

(32) The physical layer deals with
a) bit-by-bit delivery
b) process to process delivery
c) application to application delivery
d) none of the mentioned

(33) Which transmission media has the highest data transmission speed in a network?
a) coaxial cable
b) twisted pair cable
c) optical fiber
d) electrical cable

(34) In TDM, slots are further divided into _____
a) Seconds
b) Frames
c) Packets
d) Segments

(35) A telephone network is an example of _____ network.
a) Packet-switched
b) Circuit-switched
c) Message-switched
d) None of the mentioned

(36) All the packets of a message follow the same channels of a path in the
a) packet switching
b) circuit switching
c) message switching
d) virtual circuit

(37) Which of the following tasks is not done by data link layer?

a) framing
b) error control
c) flow control
d) channel coding

(38) When two or more bits in a data unit has been changed during the transmission, the error i s called

a) random error
b) burst error
c) inverted error
d) no error

(39) CRC means

a) cyclic redundancy check
b) cyclic response check
c) code redundancy check
d) cyclic repeat check

(40) Which method can detect all single-bit error

a) CRC
b) VRC
c) LRC
d) All of these

(41) The receiver of the data controls the amount of data that are to be sent by the sender is ref erred as _____

a) Flow control
b) Error control
c) Congestion control
d) Error detection

(42) Which of the following is an error detection method?

a) Multiplexing
b) Checksum
c) Reciprocity
d) Conditioning

(43) The receiver's window in a sliding window protocol expands when

a) An ACK is received
b) An ACK is sent
c) A frame is sent
d) A frame is received

(44) Sliding window is a _____ technique

a) Line discipline
b) Error control
c) Flow control
d) Session management

(45) In a stop-and-wait method of flow control, after the receiver receives a data frame, _____ frame can be sent

a) An ACK
b) An NAK
c) An EOT
d) (a) or (b)

(46) Token Bus is physically configured like _____

a) Ethernet
b) Token Ring
c) FDDI
d) All of the above

(47) Ethernet, Token Ring and token Bus are all different types of

a) LANs
b) MANs
c) WANs
d) d. VANs

(48) ICMP is primarily used for

a) error and diagnostic functions
b) physical addressing
c) IP addressing
d) none of the mentioned

(49) The TTL field has value 10. How many routers (max) can process this datagram?

a) 11
b) 5
c) 10
d) 1

(50) The time taken by a packet to travel from client to server and then back to the client is

a) STT
b) RTT
c) PTT
d) JTT

(51) If an Ethernet port on a router were assigned an IP address of 172.16.112.1/25, what woul d be the valid subnet address of this host?

a) 172.16.112.0
b) 172.16.0.0
c) 172.16.96.0
d) 172.16.255.0

(52) Datagram switching is done at which layer of the OSI model?

a) Network layer
b) Physical layer
c) Application layer
d) Transport layer

(53) Datagram networks mainly refers to

a) Connection oriented networks
b) Connection less networks
c) Telephone networks
d) Internetwork

(54) Identify the IP address in the class A–

a) 125.123.123.2
b) 191.23.21.54
c) 192.128.32.56
d) 128.14.12.34

(55) Routers function in which layer(s)?

a) physical
b) data link
c) network
d) all of these

(56) Default mask for class C is

a) 255.0.0.0
b) 255.255.0.0
c) 255.255.255.0
d) 255.255.255.255

(57) Which of the following is NOT an IPv6 address?

a) anycast
b) multicast
c) broadcast
d) unicast

(58) Which of the following is an interior routing protocol?

a) RIP
b) OSPF
c) BGP
d) both a and b

(59) What is the hostid of the IP address 114.34.2.8

a) 114.34
b) 114.34.2
c) 2.8
d) 34.2.8

(60) What part of 192.168.10.51 is the Network ID, assuming a default subnet mask?

a) 192
b) 192.168.10
c) 0.0.0.5
d) 51