



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Master of Science in Advanced Networking & Cyber Security

Course Name – Switching Professional

Course Code - MNCS402

(Semester IV)

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) How many distribution switches should be built into each switch block?

a) 1	b) 2
c) 4	d) 8
- (2) What is the maximum number of access layer switches that can connect into a single distribution layer switch

a) 1	b) 2
c) Limited only by the number of ports on the access layer switch	d) Limited only by the number of ports on the distribution layer switch
- (3) In a properly designed hierarchical network, a broadcast from one PC is confined to which one of the following?

a) One access layer switch port	b) One access layer switch
c) One switch block	d) The entire campus network
- (4) In the core layer of a hierarchical network, which of the following are aggregated?

a) Routing tables	b) Packet filters
c) Distribution switches	d) Access layer switches
- (5) A hierarchical network's distribution layer aggregates which of the following?

a) Core switches	b) Broadcast domains
c) Routing updates	d) Access layer switches
- (6) In which OSI layer should devices in the distribution layer typically operate?

a) Layer 1	b) Layer 2
c) Layer 3	d) Layer 4
- (7) End-user PCs should be connected into which of the following hierarchical layers?

- a) Distribution layer
c) Access layer
- b) Common layer
d) Core Layer
- (8) What is the purpose of breaking a campus network into a hierarchical design?
- a) To facilitate documentation
c) To make the network predictable and scalable
- b) To follow political or organizational policies
d) To make the network more redundant and secure
- (9) What is a VLAN primarily used for
- a) To segment a collision domain
c) To segment an autonomous system
- b) To segment a broadcast domain
d) To segment a spanning-tree domain
- (10) Where does a broadcast domain exist in a switched network?
- a) On a single switch port
c) On a single VLAN
- b) Across all switch ports
d) On a single VLAN
- (11) Access list rules are compiled as TCAM entries. When a packet is matched against an access list, in what order are the TCAM entries evaluated?
- a) Sequentially in the order of the original access list
c) Alphabetically by the access list name.
- b) Numerically by the access list number
d) All entries are evaluated in parallel
- (12) In a switch, frames are placed in which buffer after forwarding decisions are made?
- a) Ingress queues
c) CAM table
- b) Egress queues
d) TCAM
- (13) Multilayer switches using CEF are based on which of these techniques?
- a) Route caching
c) Topology-based switching
- b) NetFlow switching
d) Demand-based switching
- (14) In a Catalyst switch, frames can be filtered with access lists for security and QoS purposes. This filtering occurs according to which of the following?
- a) Before a CAM table lookup
c) Simultaneously with a CAM table lookup
- b) After a CAM table lookup
d) According to how the access lists are configured
- (15) What information is used to forward frames in a Layer 2 switch?
- a) Source MAC address
c) Source switch port
- b) Destination MAC address
d) IP addresses
- (16) For a Catalyst switch to offer Power over Ethernet to a device, what must occur?
- a) Nothing; power always is enabled on a port
c) The device must send a CDP message asking for power
- b) The switch must detect that the device needs inline power.
d) The device must send an LLDP message asking for power.
- (17) Which one of the following is a standards-based protocol that can be used to discover and collect information about connected devices?
- a) CDP
c) ICMP
- b) STP
d) LLDP
- (18) If a switch port is in the errdisable state, what is the first thing you should do?

- a) Reload the switch
 - b) Use the clear errdisable port command.
 - c) Use the shut and no shut interface-configuration commands.
 - d) Determine the cause of the problem.
- (19) Which of these is not a standard type of gigabit interface converter (GBIC) or small form factor pluggable (SFP) module?
- a) 1000BASE-LX/LH
 - b) 1000BASE-T
 - c) 1000BASE-FX
 - d) 1000BASE-ZX
- (20) Ethernet autonegotiation determines which of the following?
- a) Spanning-tree mode
 - b) Duplex mode
 - c) Quality of service mode
 - d) MAC address learning
- (21) Switches provide VLAN connectivity at which layer of the OSI model?
- a) Layer 1
 - b) Layer 2
 - c) Layer 3
 - d) Layer 4
- (22) Which Catalyst IOS switch command is used to assign a port to a VLAN?
- a) access vlan vlan-id
 - b) switchport access vlan vlan-id
 - c) vlan vlan-id
 - d) set port vlan vlan-id
- (23) What is the Cisco proprietary method for trunk encapsulation?
- a) CDP
 - b) EIGRP
 - c) ISL
 - d) DSL
- (24) How many different VLANs can an 802.1Q trunk support?
- a) 256
 - b) 1024
 - c) 4096
 - d) 32768
- (25) If two switches each support all types of trunk encapsulation on a link between them, which one will be negotiated?
- a) ISL
 - b) 802.1Q
 - c) DTP
 - d) VTP
- (26) Which command configures a switch port to form a trunk without using negotiation?
- a) switchport mode trunk
 - b) switchport mode trunk nonegotiate
 - c) switchport mode dynamic auto
 - d) switchport mode dynamic desirable
- (27) Which of the following is not a Catalyst switch VTP mode?
- a) Server
 - b) Client
 - c) Designated
 - d) Transparent
- (28) Which one of the following is a valid VTP advertisement?
- a) Triggered update
 - b) VLAN database
 - c) Subset
 - d) Domain
- (29) Which one of the following VTP modes does not allow any manual VLAN configuration changes?
- a) Server
 - b) Client
 - c) Designated
 - d) Transparent
- (30) Which VLAN number is never eligible for VTP pruning?
- a) 0
 - b) 1
 - c) 1000
 - d) 1001

- (31) If a VTP server is configured for VTP Version 2, what else must happen for successful VTP communication in a domain?
- a) A VTP version 2 password must be set.
 - b) All other switches in the domain must be version 2 capable.
 - c) All other switches must be configured for VTP version 2
 - d) The VTP configuration revision number must be reset.
- (32) Which one of the following VTP modes does not allow any manual VLAN configuration changes ?
- a) Server
 - b) Client
 - c) Designated
 - d) Transparent
- (33) If a switch has ten VLANs defined and active, how many instances of STP will run using PVST+ versus CST?
- a) 1 for PVST+, 1 for CST
 - b) 1 for PVST+, 10 for CST
 - c) 10 for PVST+, 1 for CST
 - d) 10 for PVST+, 10 for CST
- (34) What is the default “hello” time for IEEE 802.1D
- a) 1 second
 - b) 2 seconds
 - c) 30 seconds
 - d) 60 seconds
- (35) What mechanism is used to set STP timer values for all switches in a network?
- a) Configuring the timers on every switch in the network
 - b) Configuring the timers on the root bridge switch.
 - c) Configuring the timers on both primary and secondary root bridge switches
 - d) The timers cannot be adjusted.
- (36) Configuration BPDUs are originated by which of the following?
- a) All switches in the STP domain
 - b) Only the root bridge switch
 - c) Only the switch that detects a topology change
 - d) Only the secondary root bridge when it takes over
- (37) Which of these is one of the parameters used to elect a root bridge?
- a) Root path cost
 - b) Path cost
 - c) Bridge priority
 - d) BPDU revision number
- (38) Which one of the following commands enables you to verify the current root bridge in VLAN 10?
- a) show root vlan 10
 - b) show root-bridge vlan 10
 - c) show spanning-tree vlan 10 root
 - d) show running-config
- (39) Where should the STP UplinkFast feature be enabled?
- a) An access layer switch
 - b) A distribution layer switch
 - c) A core layer switch
 - d) All these answers are correct
- (40) What network diameter value is the basis for the default STP timer calculations?
- a) 1
 - b) 3
 - c) 7
 - d) 9
- (41) What command can change the path cost of interface Gigabit Ethernet 1/0/3 to a value of 8?
- a) spanning-tree path-cost 8
 - b) spanning-tree cost 8
 - c) spanning-tree port-cost 8
 - d) spanning-tree gig 1/0/3 cost 8
- (42) Which of these is the single most important design decision to be made in a network running STP?

- a) Removing any redundant links
- b) Making sure all switches run the same version of IEEE 802.1D
- c) Root bridge placement
- d) Making sure all switches have redundant links
- (43) To reset switch ports that have been put into the errdisable mode by UDLD, which one of the following commands should you use?
- a) clear errdisable udd
- b) udd reset
- c) no udd
- d) show udd errdisable
- (44) What must a switch do when it receives a UDLD message on a link?
- a) Relay the message on to other switches
- b) Send a UDLD acknowledgment
- c) Echo the message back across the link
- d) Drop the message
- (45) Which of the following features can actively test for the loss of the receive side of a link between switches?
- a) POST
- b) BPDU
- c) UDLD
- d) STP
- (46) Which of the following commands can enable STP Loop Guard on a switch port?
- a) spanning-tree loop guard
- b) spanning-tree guard loop
- c) spanning-tree loop-guard
- d) spanning-tree loopguard enable
- (47) Why is it important to protect the placement of the root bridge?
- a) To keep two root bridges from becoming active
- b) To keep the STP topology stable
- c) So all hosts have the correct gateway
- d) So the root bridge can have complete knowledge of the STP topology
- (48) Which of the following commands can you use to enable STP Root Guard on a switch port?
- a) spanning-tree root guard
- b) spanning-tree root-guard
- c) spanning-tree guard root
- d) spanning-tree rootguard enable
- (49) Which of the following features protects a switch port from accepting BPDUs when PortFast is enabled?
- a) STP Loop Guard
- b) STP BPDU Guard
- c) STP Root Guard
- d) UDLD
- (50) How many instances of STP are supported in the Cisco implementation of MST?
- a) 1
- b) 16
- c) 256
- d) 4096
- (51) Which code is used to set a Root Bridge?
- a) #switch(config)mst 1 root primary
- b) #spanning-tree mst 1 primary root
- c) #spanning-tree root mst 1 primary
- d) #spanning-tree mst 1 root primary
- (52) Which of the following is a feature of the VLAN hopping strategy?
- a) Attacker connects to access switch port
- b) Attacker sends single-tagged frame
- c) Switch must have an 802.1w trunk
- d) Native VLAN differs from access VLAN
- (53) Which command will place the switch in a mode so that it does not affect the VLAN database?
- a) vtp mode server
- b) vtp mode client
- c) vtp mode transparent
- d) None of these

- (54) Which is not a configuration option for SNMP?
- a) Access lists
 - b) Group
 - c) Trap receiver
 - d) Poll agent
- (55) Which is not a function of IP SLA?
- a) VOIP Monitoring
 - b) Single Protocol Label Switching
 - c) Network Performance Monitoring
 - d) SLA Monitoring
- (56) Which of the following is a feature of isolated VLANs?
- a) Devices can't connect to any other peers
 - b) Two layer connectivity within each VLAN
 - c) Device communication within community
 - d) Devices within the VLAN communicate
- (57) Which command configures a device as an NTP client and points to the NTP server at a specified IP address?
- a) ntp peer
 - b) ntp client
 - c) ntp master
 - d) ntp server
- (58) How does TACACS+ provide guaranteed packet delivery?
- a) It combines authentication and authorization
 - b) It uses TCP as its transport protocol
 - c) It uses UDP as its transport protocol
 - d) It inserts a 4-byte tag field into the original Ethernet frame
- (59) Which code sets up the timezone to Pacific Standard Time and is offset by 8 hours from the Greenwich Mean Time?
- a) set clock timezone PST -8
 - b) clock timezone PST -8
 - c) clock set PST -8
 - d) clock timezone PST 8
- (60) Which command is used to disable CDP?
- a) show cdp
 - b) no cdp run
 - c) cdp enable
 - d) cdp run