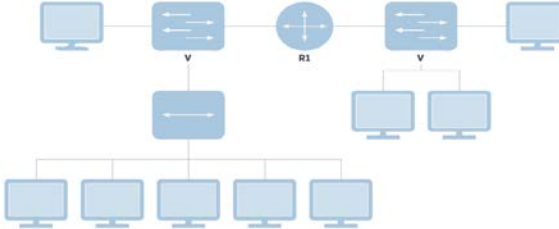


Exam of Networks and Interconnection 2023 - 2024

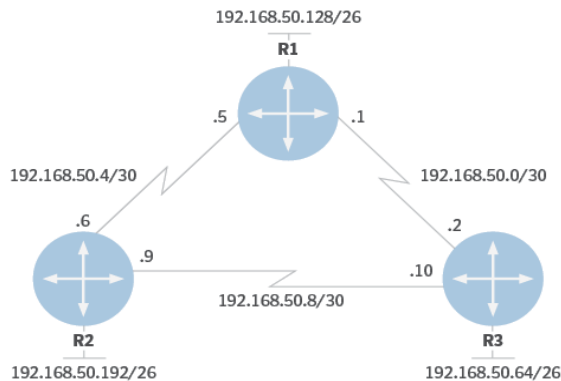
First name:

Last name:

1. A collision domain is a network segment connected by a shared medium or through repeaters where simultaneous data transmissions collide with one another. After carefully examining the network diagram, select the correct statement regarding broadcast and collision domains.
- 
- There is one broadcast domain and seven collision domains.
 - There are two broadcast domains and five collision domains.
 - There is one broadcast domain and 12 collision domains.
 - There are two broadcast domains and seven collision domains.
 - There are two broadcast domains and 12 collision domains.
2. No matter how it is configured, a single switch port is considered what?
- A separate unicast domain
 - A separate broadcast domain
 - A separate multicast domain
 - A separate collision domain
3. For a Class C IPv4 Address, how many usable hosts are there by default?
- 64516
 - 32768
 - 255
 - 254
 - 65536
4. A user is unable to reach the website when typing `http://www.google.com` in a web browser, but can reach the same site by typing `http:// 216.58.211.206`. What is the issue?
- DHCP
 - DNS
 - TCP/IP protocol stack
 - default gateway
5. What is the broadcast address for a Class C address of 192.168.145.0 with default Subnet Mask?
- 192.168.0.0
 - 192.168.145.255
 - 192.168.145.254
 - 192.168.145.0
 - 192.168.145.1
6. Which ones are true about TCP & UDP?
- There is no error checking mechanism in UDP.
 - UDP has guaranteed transmission.
 - TCP is faster than UDP.
 - TCP is a secure protocol and UDP is not secure.

7. Identify which of the services below uses both TCP and UDP ports.

- FTP
- TFTP
- DNS
- SSH
- Telnet



R3# sh ip route

```
Gateway of last resort is not set
192.168.50.0/26 is variably subnetted, 6 subnets, 2 masks
C 192.168.50.64/26 is directly connected, FastEthernet0
C 192.168.50.8/30 is directly connected, Serial0/1
C 192.168.50.0/30 is directly connected, Serial0/0
D 192.168.50.4/30 [90/21024000] via 192.168.50.9, 02:52:16, Serial 0/1
   [90/21024000] via 192.168.50.1, 02:52:16, Serial 0/0
D 192.168.50.192/26 [90/20537600] via 192.168.50.9, 02:52:16, Serial 0/1
D 192.168.50.128/26 [90/20537600] via 192.168.50.1, 02:52:17, Serial 0/0
```

8. In the network diagram above, which path will packets take when traveling from host 192.168.50.126 to host 192.168.50.5?

- Packets will travel from R3 to R2 to R1.
- Packets will travel from R1 to R3 to R2.
- Packets will travel from R3 to R1 and return back to R3.
- Packets will travel from R3 to R1 and from R3 to R2 to R1.
- Packets will travel from R1 to R2 and back.

9. What does a PC broadcast to learn an unknown MAC address?

- ARP Reply
- ICMP Reply
- ICMP Request
- ARP Request
- None of Them

10. Which one is a Site-to-Site VPN?

- Internet Based VPN
- Intranet Based VPN

11. Which of the below protocols are Routed protocols?

- VTP
- IP
- RIP
- OSPF
- STP

12. With VPN type company sites which are in geographically different places are connected over internet securely

- Site to Site
- Remote Access
- Normal Access
- Company

13. There are 5 VLANs on a Switch. How many Broadcast Domains are there for these VLANs?

- 1
- 10
- 5

None of them

14. OSPF uses ... algorithm to calculate Shortest Path.

- Policy Based
- Bellman-Ford
- Dijkstra
- None of Them

15. Which one is a Link State Routing protocols?

- OSPF
- RIP
- BGP

16. Default administrative max count of RIP protocol is

- 15
- 1
- 10
- 255

17. Which of the following Protocols uses UDP?

- SMTP
- HTTP
- FTP
- DNS

18. Which two things does a router do when it forwards a packet? (Choose two.)

- determines the next hop on the path
- switches the packet to the appropriate outgoing interfaces
- computes the destination host address
- forwards ARP requests
- updates the destination IP address

19. When a router receives a packet, what information must be examined in order for the packet to be forwarded to a remote destination?

- source MAC address
- destination IP address
- source IP address
- destination MAC address

20. When IPv4 addressing is manually configured on a web server, which property of the IPv4 configuration identifies the network and host portion for an IPv4 address?

- DNS server address
- DHCP server address
- default gateway
- subnet mask

Good Luck