**Studytonight – CN test 3 – Aditya Jain**

1. **Which of the following is private IP address?**
2. **192.168.24.43**
3. 168.172.19.39
4. 172.15.14.36
5. 12.0.0.1

Soln: Class A private address range is 10.0.0.0 through 10.255.255.255, Class B private address range is 172.16.0.0 through 172.31.255.255 and Class C private address range is 192.168.0.0 through 192.168.255.255.

1. **Which class of IP address provides a maximum of only 254 host addresses per network ID?**
2. Class A
3. Class B
4. **Class C**
5. Class D

Soln: A Class C network address has only **8 bits** for defining hosts: **2^8 – 2 = 254**.

1. **In dial up remote access, a client uses the ---- to create a physical connection to a part on a remote access server of the private network.**
2. **Public Telephone network**
3. Bank branch network
4. Private network
5. Public local network
6. **Which of the following devices is a PC component that connects the computer to the network?**
7. Bridge
8. **NIC**
9. DNS Server
10. Gateway

**Soln:** NIC (Network Interface Card) is a physical PC Component which is used to make an interface between PC and Network using PCI Slots on Mother board.

1. **Which of the following devices modulates digital signals into analogue signals that can be sent over traditional telephone lines?**
2. Router
3. Gateway
4. Switch
5. **Modem**

Soln: Modem is device that Modulate Digital Signals to Analogue Signals that can be sent to telephone line.

1. **How long is an IPv6 address?**
2. 32 bits
3. **128 bits**
4. 128 bytes
5. 64 bits

Soln: IPv6 addresses are 128 bits. They are usually written as 8 groups of 4 hex digits separated by colons.

Example- 2001:0db8:85a3:0000:0000:8a2e:0370:7334

1. **How often are BPDUs sent from a layer to device?**
2. **Every 2 seconds**
3. Never
4. Every 10 minutes
5. Every 30 seconds

Soln: A bridge protocol data unit (**BPDU**) is a data message transmitted across a local area **network** in every 2 seconds to detect loops in **network** topologies.

1. **Which router command allows you to view the entire contents of all access lists?**
2. show all access-lists
3. **show access-lists**
4. show ip interface
5. show interface

**soln:** to see the contents of all access lists, use the show access-lists command.

1. **What protocols are used to configure trunking on a switch?**
2. **VLAN**
3. 802.1Q
4. ISL
5. DNS
6. **How many collision domains are created when you segment a network with a 12-port switch?**
7. 1
8. **12**
9. 5
10. 2

Soln: Layer to switching creates individual collision domains.

1. **Which protocol does Ping use?**
2. TCP
3. ARP
4. **ICMP**
5. BootP

Soln: **Internet Control Message Protocol** (ICMP) is the protocol at the Network layer that is used to send echo requests and replies.

1. **Which Point-to-Point Protocol provides (PPP) dynamic addressing, authentication and multilink?**
2. NCP
3. HDLC
4. X.25
5. **LCP**

Soln: Link Control Protocol (LCP) in the PPP stack provides dynamic addressing, authentication and multilink.

1. **What is a stub network?**
2. **A network that has only one entry and exit point**
3. A network with only one entry and no exit point
4. A network with more than one exit point
5. A network with more than one exit and entry point

**Soln:**  Stub network have only one connection to an internetwork. Only default routes can be set on a Stub network otherwise network loops may occur

1. **Consider you have 10 users plugged into a hub running 10Mbps half-duplex. There is a server connected to the switch running 10Mbps half-duplex as well. How much bandwidth does each host have to the server?**
2. 100 kbps
3. **10 Mbps**
4. 1 Mbps
5. 2 Mbps

Soln: A Hub is a Broadcasting device. Hence, each device has 10 Mbps to the server.

1. **Which of the following terms is used to describe a hardware or software based device that protects networks form outside threats?**
2. NIC
3. Gateway
4. **Firewall**
5. Hub