Advanced Computer Networks

1. Switch is a device in which layer of OSI model?

A:- Link layer (A) [for Router => Network layer]

2. The first three bits of a class B IP address in class full network addressing start with [for class D => 1110, for class E => 1111]

A:- 10 (B) [for class C => 110, for class A => 0]

3. If an IP address has a netmask of 255.255.252.0, how many bits are used for denoting the subnet?

A:- 22 (C)

4. For a subnet 192.168.60.0/24, which of the following IP address is the broadcast IP address?

A:- 192.168.0.255 (C)

5. Which of the following docker command is used for displaying both stopped and running containers?

A:- docker ps -a (A)

6. Which section in a docker-compose.yml file lists all the containers that we want to build an run?

A:- services (A)

7. Which of the following is a correct way to use Scapy to create TCP packets for destination host 10.10.10.10, ports 200-300

A:- pkt = IP(dst = "10.10.10.10") / TCP(dport = (200,300)) (C)

8. ICMP is a protocol in which layer of OSI model?

A:- Network layer (B) => ARP (Link layer), TCP (Transport layer)

9) In an Ethernet frame, the following code in the type header indicates an ARP packet?

A:- 0X0800 (C)

10) In an IP datagram, which of the following code in the protocol header indicates the payload of the IP datagram is a TCP segment?

A):- 1 (If ICMP is asked)
6 (TCP segment)
17 (UDP packet)

11) Which of the following is the correct command to make a TCP server listening at port XXXX

A) Basic syntax [$ netcat [options] host port]
[Initiates TCP connection to the defined host on port no. specified]
[$ netcat -U host port] ⇒ If you need UDP packet instead of TCP conn (idi nachipo)
[$ netcat host startport-endport] ⇒ for range of ports

a value vide adhe answer to understand to use netcat
to
nc -lvp XXXX

12) Which command is correct to set aa:bb:cc:dd:ee:ff as the MAC address for 10.0.2.10

A:- sudo ip link set dev eth0 10.0.2.10 aa:bb:cc:dd:ee:ff
(option to m daggaraga vide adi raseyi)

14. Which of the following socket will be used by a sniffer program to sniff packets on network?

A:- SOCK-RAW (C)

15. Which of the following is correct bpf to show all TCP packets from host 192.168.1.81, ports 100 to 200

A:- TCP and PORT 100-200 and Src host 192.168.1.81 (D)

16. Which of the following can not be a valid MAC address?

A:- 02:42:b7:41:b9:8g (A) [Valid mac address have a-f, A-F, 0-9 & start with digits only]
[:,-,; Accepted] [Consists of 6 pairs]

17. Which of the following statement about checksum is not correct? (D)

A:- UDP's checksum is calculated on both the UDP headers & data

18. What interface will be used to route packets to destination 10.10.20.10?

A:- 10.10.20.0/24 dev interface -c

19. Which of the following statement about gratitutious ARP request is not correct?

A:- The source mac is broadcast address ff:ff:ff:ff:ff:ff in both ARP header and ethernet header. (B)

20. You used scapy to craft a TCP packet

A:- ~~Both B & C (may be)~~ pkt[TCP].flags = 'S'

21. Which of the following statement about virtual machine & container is not correct?

A:- VM is less secure than container (D)

22. Which of the following statement displays the least detailed information about a packet pkt?

A:- pkt.summary() ~~[May be]~~

23. Assume a packet is created as follows

pkt = IP() / TCP() / 'Hello'

A:- pkt.payload.load

24. Based on routing table from a router.

A:- 169.254.0.0/16 are the link local addressed which are not routable (D)

25. Based on routing table below

A:- 10.0.2.128 (D)

26. Which of the following statement abt TCP & UDP is incorrect?

A:- ~~Both TCP &~~ UDP is speed is faster than TCP (B)

27. Which of the following attack used the IP directed broadcast?

A:- Smurf attack (A)

28. Jason is a student in CYBR 5800

28. Blanks 1, 4 are

A:- 8, 0 [B]

29. Value in blanks 2 and 3

A:- pkt[IP].dst , pkt[IP].src (C)

30. what are values in blanks 5 and 6 ?

A:- pkt[ICMP].id, pkt[ICMP].seq (C)

31. what are values 7 & 8

A:- ip/icmp/data, ip/icmp (A)

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32. Blanks 1 and 3

A:- VM_A_MAC, VM_A_MAC (B)

33. Values in blanks 2 and 4 ? (B)

A:- 'ff:ff:ff:ff:ff:ff', 'ff:ff:ff:ff:ff:ff'
(Broad-cast MAC) (Broad-cast MAC)

34. What are values in blanks 5, 6?

A:- VICTIM_IP , VICTIM_IP (C)

35. what is value in blank 7

A:- 2 (C)

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36. 1, 5, 10 blanks

A:- 0, 16, 31 (C)

37. Blanks 4, 9

A:- ID, ID (A)

38. Blanks 7, 12

A:- 17, 17 (D)

39. 2, 6, 11 blanks

A:- 1, 1, 0 (A)

40. 3, 8, 13 values

A:- ip/udp/payload,
ip/udp/payload,
ip/udp/payload (A)

Priyanka as a Student

41. blanks 1 and 2

A:- gateway-ip , victim-ip (A)

=) 3, 4 blanks => 5, 1

=) 5 blank => attacker_ip

=) 6, 7 blanks => victim_ip , des_ip

=) 8 blank => ip/icmp/redirect/udp()

(or)

ip/icmp/ip2/udp()

(option to mi unte adhe answer)

paina question ledu anduke hehe :)