RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES, BASAR

(A.Y. 2022-2023)

Computer Science & Engineering

Subject: Computer Networks Lab   Subject Code: CS3802
Date: 18/08/2023   Time: 2 Hrs
Exam: E3SEM2 LAB EXTERNAL   Max Marks: 40

SET 1

NOTE:

1. Answer any Two Questions, each question carries 20 Marks
2. Use Packet tracer for Simulation.
3. Mention the IP's of each PC/device on the packet tracer interface.
4. After completing each simulation, you may contact the invigilator and show your output, then you may start the next simulation.
5. **While showing simulation, Make sure to select only ICMP protocols so as to avoid confusion.**
6. Draw the required diagrams, write the procedure for the simulation and CLI commands (wherever needed) in the answer script.

SECTION A

1. Simulate Peer to Mesh topology by taking 5 PC's. Use Class B IP addresses.

   Required output: A) Topology
   B) Ping from any PC to any other PC
   C) Unicasting and Broadcasting in Simulation Mode

2. Configure a router and configure DHCP service, Default Gateway address and DNS address on that router. (Use CLI commands)

   Required output: A) Network Diagram
   B) All PC's should get IP addresses, Default gateway address and DNS address automatically.
   C) Ping router from PC's

3. Create Two Different LANs.
   Details of First LAN: Use star topology with 4 PC's and Use Class C addressing.
   Details of Second LAN: Use Bus topology with 3 PC's and Use Class A addressing.
   Connect the above two LANs by using required devices.

   Required output: A) Network Diagram
   B) Ping any PC's from the PC in the same LAN
   C) Ping any PC's from the PC in different LAN

SECTION B

1. ICMP is used in _____
A. Ping
B. Traceroute
C. Ipconfig
D. Both Ping & Traceroute

2. If you want to find the number of routers between a source and destination, the utility to be used is _____
A. route
B. Ipconfig
C. Ifconfig
D. Traceroute

3. What is the purpose of the nslookup program? Please select the best answer.
A. To provide operating system and architecture information from the DNS database
B. To specify an IP address-to-host name mapping
C. To define a specific machine's alias
D. To probe the DNS database and generate name server queries

4. The netstat command give information on:
A. Routing tables
B. All are correct
C. Active sockets
D. Open sockets

5._____ Protocol is used to resolve IP address to an Ethernet address
A. RARP
B. ARP
C. Ipconfig
D. Bootp

6. Which of the following device can do Unicasting, Multicasting and Broadcasting?
A. Hub
B. Switch
C. Router
D. All of these

7. Which of the following topology requires more cabling?
A. Star
B. Peer to Peer
C. Bus
D. All of these requires same number of cables

8. Which of the following maintains routing table?
A. Hub
B. Switch
C. Router
D. All of these

9. Which prompt shows, you are in the privileged mode?
A. router>
B. router (config)
C. router#
D. router (config-if)

10. To get help with the parameters, what you should enter directly after a specific router command at the CLI?
A. Type the command and follow it with a question mark.
B. Type help and view the command parameters on the help screen.
C. All of these are correct
D. Type a question mark at any prompt.

11. Which statement is true regarding the user exec and privileged exec mode?
A. They both require the enable password
B. User exec is a subset of the privileged exec
C. All of these are correct
D. They are identical

12. What is an example of a MAC address?
A. Az32:6362:2434
B. BA:281x:8288
C. 101:354:665:8734:ffd6:8023
D. A625:cbdf:6525

13. Which of the following topology is being used in RGUKT Basar class rooms?
A. Star topology using Hub
B. Star topology using Switch
C. Bus Topology
D. Peer to Peer tolology

14. Which of the following is an example of a class C network address?
A. 10.254.90.135
B. 172.16.98.42
C. 255.255.255.255
D. 192.168.90.131

15. You have to configure one of the following in order to enable telnet functionalities in a router.

A. VCI
B. VTP
C. VTY
D. VPI

16. Which of the following statements are true in connection with the User Exec mode?
A. All of these are correct
B. You can directly enter into the global configuration mode by using "configure terminal" in user exec mode
C. You can send a Ping request to the remote IP host from user exec mode
D. The router passwords are configured in this mode.

17. What will happen, if you press Control+Z in CLI mode of the router?
A. log out of the router
B. Exists back to the privileged mode
C. Exists back to User exec mode
D. exit one step back from the current mode

18. _____ is an application layer protocol that manages the IP pool to allocate IP addresses to the hosts automatically.
A. DNS
B. DHCP
C. TCP/IP
D. POP

19. The communication protocol is defined as :
A. the set of instructions and programming language.
B. the set of rules to govern the data communication between the two entities.
C. the set of network devices that are used to connect hosts.
D. All of the above.

20. If you telnet to a router or switch, you can end the connection by typing ?
A. exit
B. quit
C. close
D. move

---END OF THE PAPER--