



RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES, BASAR
(A.Y. 2023-2024)

Computer Science & Engineering

Subject: Computer Networks Lab
Date: 24/04/2024
Exam: E3SEM2 LAB EXTERNAL

Subject Code: CS3802
Time: 2 Hrs
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.
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SECTION A

1. Simulate DHCP server configuration create a Network connecting star, Bus and Ring Topology using Class A Address(Network should be 10 switches and 12 PC's) .

Required output: A) Topology Diagram

B) Ping from any PC to any other PC

C) Perform ARP Request

D) Unicasting and Broadcasting in Simulation Mode

2. Configure a Email server using packet tracer setup a network with atleast 3 PC's

Required output: A) Network Diagram

B) Message Received should be with your Address details

C) Ping from PC's to other PC

D) ARP Request

3. Create Three Different LANs using Required Router use switches according to the Network.

Details of First LAN: Use star topology with 3 PC's and Use Class A addressing.

Details of Second LAN: Use Ring topology with 4 PC's and Use Class B addressing.

Details of Third LAN: Use Star topology with 3 PC's and Use Class C addressing.

Connect the above Three LANs by using required devices.

Required output: A) Network Diagram

B) ARP Request from one network PC to Other network PC

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

A) Multiple choice questions. Each Question carries one mark.

1. Which one of the following is not a client-server application?

- A. Internet Chat
- B. Web Browsing
- C. Email
- D. Ping

2. Which of the following transport layer protocols is used to support electronic mail?

- A. SMTP
- B. IP
- C. TCP
- D. UDP

3. The address resolution protocol (ARP) is used for?

- A. Finding the IP address from the DNS
- B. Finding the IP address of the default gateway
- C. Finding the IP address that corresponds to a MAC address
- D. Finding the MAC address that corresponds to an IP address

4. ICMP is used in _____

- A. Ping
- B. Traceroute
- C. Ipconfig
- D. Both Ping & Traceroute

5. If you want to find the number of routers between a source and destination, the utility to be used _

- A. route
- B. Ipconfig
- C. Ifconfig
- D. Traceroute

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 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

10. What is the size of the ‘total length’ field in IPv₄ datagram?

- A.4 bit
- B.8 bit
- C. 16 bit
- D.32bit

B) VIVA Questions Each Question carries 2 marks.

1.What are latency and bandwidth?

2. What kinds of errors are there?

3.How is subnet Addressing is performed.

4.Explain about subnetmask

5.What is TCP

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