



COMSATS University Islamabad, Attock Campus
Department of Computer Science

Program: BCS

Lab Terminal Spring 22

Course: - Data Communication and Computer Networks

Time Allowed: 3 Hours

Dated: 05/1/2023

Marks: 50

Name: _____ Regn. No: _____

Note:- Don't write anything on Question Paper except your name & Regn. No.

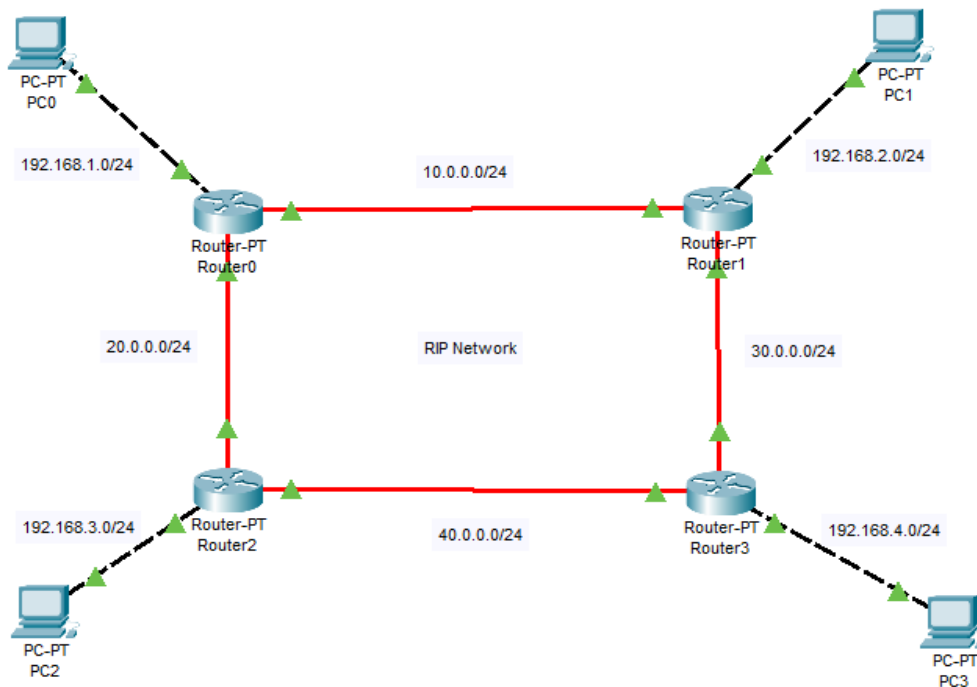
!!!!!!Attempt all Questions!!!!!!

Q. No 1 (CLO-6, SO(2,3,4,5,9), 15 Marks)

Consider the following Network topology, Design and configure it in Packet tracer. Run the RIP routing protocol on each router for communication between hosts

Submission:

You must take snapshot that show the routing table, IP interfaces summary. Copy the running configuration once you have configured all the routers. Once you have done, upload the separate files i.e running packet tracer file(.pkt), pdf or word file containing all the running configurations of routers and snapshot of routing tables.



Q. No 2 (CLO-3, SO(2), 15 Marks)

Enter the following URL into your browser<http://gaia.cs.umass.edu/>

- **Start Wireshark packet capture**
- **Analyze the packets at each layer of TCP/IP suite model.**

Answer the following Question

- What are the protocols used at each layer**
- What is the source and destination IP and mac addresses**
- What is the 48-bit Ethernet address of your computer?**
- What is the 48-bit destination address in the Ethernet frame?**
- Give the hexadecimal value for the two-byte Frame type field. What upper layer protocol does this correspond to?**
- How many bytes from the very start of the Ethernet frame does the ASCII “G” in “GET” appear in the Ethernet frame?**

Q. No 3 Viva (10 marks)