# DCN-Assignment # 01 Total Marks = 10

Last Date of Submission: 17th November 2021 Submit in print out form ONLY.

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**Question**: Design a Hybrid network which consist of 5 routers. Use serial cable between routers. Attach 4 PCs with each router. Connect a Web Server with router 4 switch also.

The requirements are as follows:

1. All the devices must be on your name.
2. Assign IP addresses on all devices. (use IP addresses from the given range below)
3. IP address tagging is mandatory on network diagram with subnet prefix.
4. You have to apply VLSM on complete network.
5. PCs connected with router 4 switch must be able to access Web Server through an IP address. Web Page must be displayed on PCs attached with router 4 switch.
6. Configure TELNET by setting all three passwords on router 2. All attached PCs from this router must be able to access mentioned router. All passwords should be on your Student name + ID.
7. Configure DHCP on router 1 and router 6 so that all the attached PCs must be able to get dynamic IPs from DHCP server. DHCP pool name must be on your Student name and ID. ( **example: JUNAID\_1072**) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Use the given IP addresses where each Public and Private addresses can be suitable.

31.20.10.1 to 71.40.40.255, 146.146.146.1 to 170.170.170.255, 203.202.201.1 to 212.211.20.255 **Requirements:**

1. All the above mentioned details on page 1.
2. Network Topology with complete IP address and prefix tagging on page 2.
3. IP address of each router with specific router name. (Like router 1, all IPs of this router, then all Ips of router 2 and so on). All the routers must be on your name. {Like **DCN-Lab (config-if)# ip address 10.0.0.1 255.255.255.252**}
4. Take snaps of IP configuration on routers as mentioned in point number 3. **(DCN-Lab is the host name which must be on your name. Don’t close your file until you didn’t take the configuration snap otherwise hostname will not be appeared)**
5. All IP address of PCs and subnet mask.
6. Web page access from PCs.
7. TELNET complete configuration code of router.
8. User Access Verification window snap of all the PCs attached with the router 2.
9. DHCP complete configuration code of router.

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***CID: 107997***

Graphical user interface

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TELNET CONFIGURATION:

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DHCP CONFIGURATION FOR ROUTER 1:

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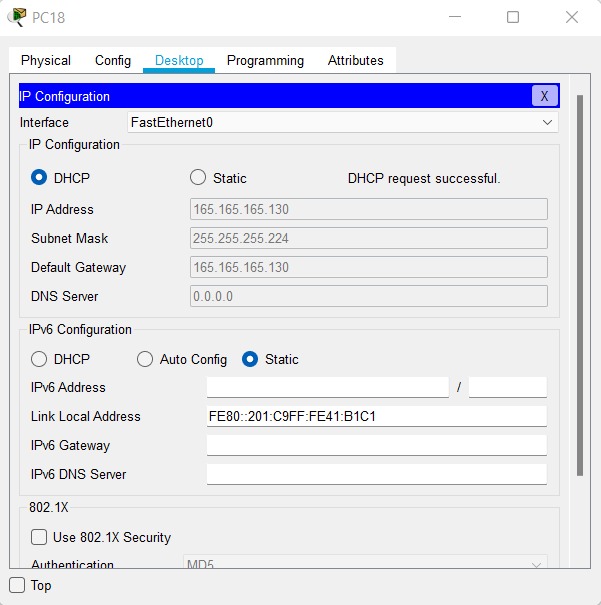
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DHCP CONFIGURATION FOR ROUTER 5:

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