**Computer Networks**

**Assignment**

**Deadline – 23rd September 2020 11.59 pm**

**Network Design:**

There will be 3 routers, 2 switches, 6 pcs and a server in the network

* Pc0, Pc1, Pc2 are connected with switch 0. Switch 0 is connected with Router 0.
* Pc3, Pc4, Pc5 are connected with switch 1. Switch 1 is connected with Router 1.
* Server0 is connected with Router 2.
* Router to router connection : 210.0.0.0/28 (Apply subnetting)

Router 0 to Router 1 (1st subnet), Router 1 to Router 2 (2nd subnet)

**Router 0**

* VLSM (IP- 172.20.0.0/16)

Vlan 4 (Host -1800), Vlan 8 (Host - 480), Vlan 4 (Host - 28)

* Default gateway – 1st valid ip
* Configure encapsulation
* DHCP pool names: Vpool4, Vpool8 and Vpool 12
* OSPF autonomous number 375
* Apply Natting

**Switch 0**

Vlan 4 (MKT) –f0/2 –f0/8

Vlan 8 (FIN)- f0/9 –f0/16

Vlan 12 (ADMIN)- f0/17-f0/24

Trunk – f0/1

**Router 1**

* VLSM (IP- 10.0.0.0/18)

Vlan 7 (Host -950), Vlan 14 (Host - 250), Vlan 21 (Host - 58)

* Default gateway – 1st valid ip
* Configure encapsulation
* DHCP pool names: Vpool7, Vpool14 and Vpool 21
* OSPF autonomous number 425
* Apply Natting

**Switch 1**

Vlan 7 (ENG)– f0/2 –f0/10

Vlan 14 ( PHN)- f0/11 –f0/18

Vlan 21 (BBA)- f0/19-f0/24

Trunk – f0/1

**Router 2**

IP – 192.168.10.0/27

* Default gateway – 1st valid ip
* DHCP pool name – Spool
* OSPF autonomous number 450

**Apply NAT in all the routers.**