CSE-421

Project

: Topic-2 (We chat)

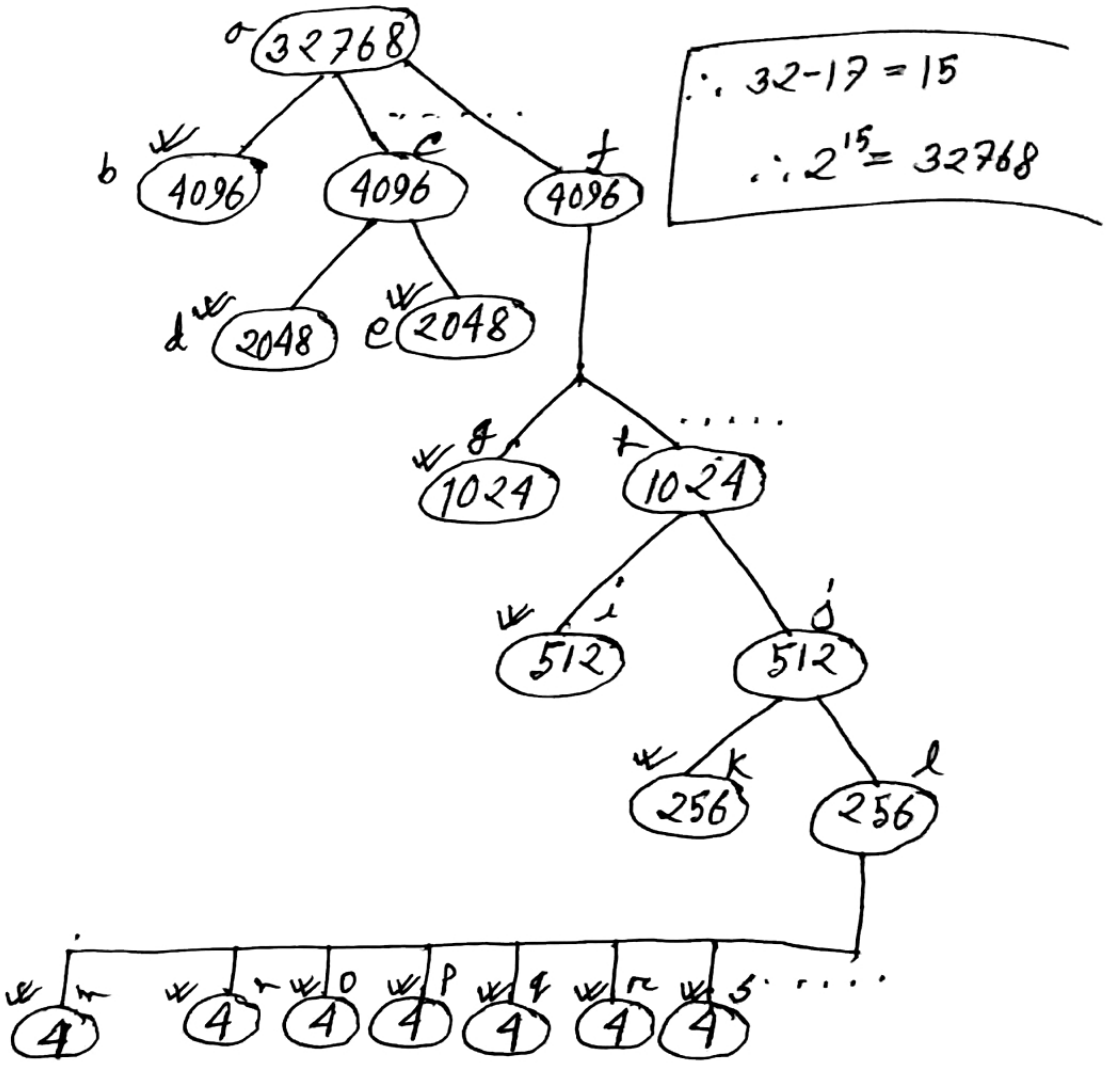
Group-21

Topic-2 (We chat)

#	Hosts	IPs	Given	H.B.	N.B.
Dhaka	2480	2482	4096	12	20
Rajshahi	1830	1832	2048	11	21
Ctg	1092	1094	2048	11	21
Khulna	654	656	1024	10	22
Sylhet	480	482	512	9	23
Rangpur	196	198	256	8	24
WAN 1	2	4	4	2	30
WAN 2	2	4	4	2	30
WAN 3	2	4	4	2	30
WAN 4	2	4	4	2	30
WAN 5	2	4	4	2	30
WAN 6	2	4	4	2	30
WAN 7	2	4	4	2	30

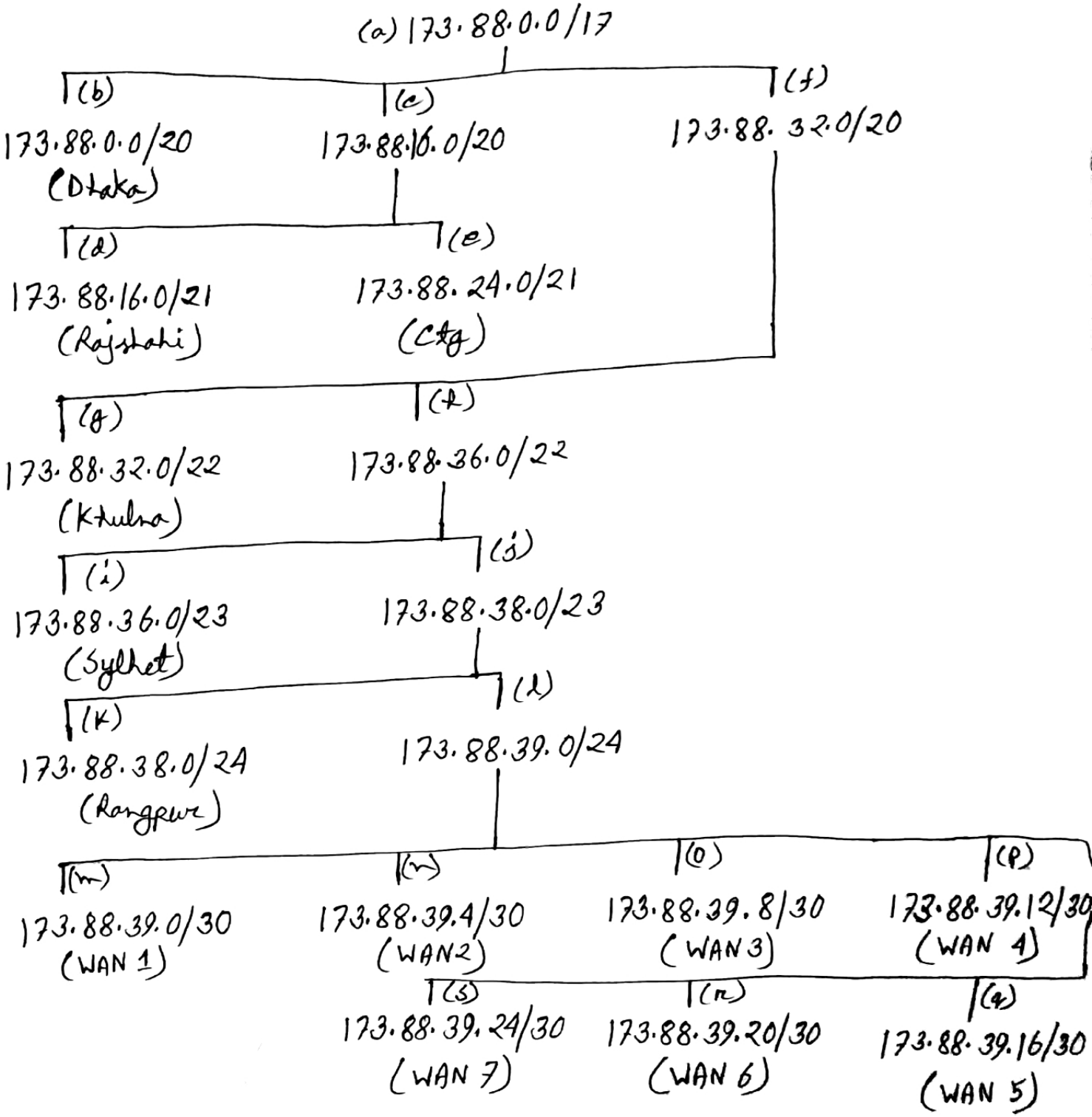
173.88.0.0/17

b- Dhaka
d- Rajshahi
e- Ctg
g- Khulna
i- Sylhet
k- Rangpur
m- WAN1
n- WAN2
o- WAN3
p- WAN4
q- WAN5
r- WAN6
s- WAN7



∴ 32-17 = 15

∴ 2^{15} = 32768


(a) 173.88.0.0/17
(b)
173.88.0.0/20
(Dhaka)
(c)
173.88.16.0/20
(f)
173.88.32.0/20
(d)
173.88.16.0/21
(Rajshahi)
(e)
173.88.24.0/21
(Ctg)
(g)
173.88.32.0/22
(Khulna)
(h)
173.88.36.0/22
(i)
173.88.36.0/23
(Sylhet)
(j)
173.88.38.0/23
(k)
173.88.38.0/24
(Rangpur)
(l)
173.88.39.0/24
(m)
173.88.39.0/30
(WAN 1)
(n)
173.88.39.4/30
(WAN2)
(o)
173.88.39.8/30
(WAN 3)
(p)
173.88.39.12/30
(WAN 4)
(s)
173.88.39.24/30
(WAN 7)
(r)
173.88.39.20/30
(WAN 6)
(q)
173.88.39.16/30
(WAN 5)

Rajshahi

Router(config)#interface Serial3/0

Router(config-if)#ip address 173.88.39.1 255.255.0.0

Router(config-if)#ip address 173.88.39.1 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.5 255.255.255.252

Router(config-if)#ip address 173.88.39.5 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet0/0

Router(config-if)#shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down

ip address 173.88.16.5 255.255.248.0

Router(config-if)#no shutdown

Router(config)#

Router(config)#ip route 173.88.32.0 255.255.252.0 173.88.39.2

Router(config)#ip route 173.88.38.0 255.255.255.0 173.88.39.6

Router(config)#ip route 173.88.0.0 255.255.240.0 173.88.39.6

Router(config)#ip route 173.88.36.0 255.255.254.0 173.88.39.6

Router(config)#ip route 173.88.24.0 255.255.248.0 173.88.39.6

Router(config)#ip route 0.0.0.0 0.0.0.0 173.88.39.6

Router(config)#

Khulna

Router(config)#interface Serial3/0

Router(config-if)#ip address 173.88.39.2 255.255.0.0

Router(config-if)#ip address 173.88.39.2 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.9 255.255.255.252

Router(config-if)#ip address 173.88.39.9 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet0/0

Router(config-if)#shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down

ip address 173.88.32.5 255.255.252.0

Router(config-if)#no shutdown

Router(config)#

Router(config)#ip route 173.88.16.0 255.255.248.0 173.88.39.1

Router(config)#ip route 173.88.38.0 255.255.255.0 173.88.39.10

Router(config)#ip route 173.88.0.0 255.255.240.0 173.88.39.10

Router(config)#ip route 173.88.36.0 255.255.254.0 173.88.39.10

Router(config)#ip route 173.88.24.0 255.255.248.0 173.88.39.10

Router(config)#ip route 0.0.0.0 0.0.0.0 173.88.39.10

Router(config)#

Rangpur

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.6 255.255.0.0

Router(config-if)#ip address 173.88.39.6 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial3/0

Router(config-if)#ip address 173.88.39.10 255.255.255.252

Router(config-if)#ip address 173.88.39.10 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial6/0

Router(config-if)#ip address 173.88.39.14 255.255.255.252

Router(config-if)#ip address 173.88.39.14 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet1/0

Router(config-if)#ip address 173.88.39.26 255.255.255.252

Router(config-if)#ip address 173.88.39.26 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet0/0

Router(config-if)#ip address 173.88.38.5 255.255.255.252

Router(config-if)#ip address 173.88.38.5 255.255.255.0

Router(config-if)#no shutdown

Router(config)#

Router(config)#ip route 173.88.16.0 255.255.248.0 173.88.39.5

Router(config)#ip route 173.88.32.0 255.255.252.0 173.88.39.9

Router(config)#ip route 173.88.0.0 255.255.240.0 173.88.39.13

Router(config)#ip route 173.88.36.0 255.255.254.0 173.88.39.13

Router(config)#ip route 173.88.24.0 255.255.248.0 173.88.39.13

Router(config)#ip route 0.0.0.0 0.0.0.0 173.88.39.13

Router(config)#

Dhaka

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.13 255.255.0.0

Router(config-if)#ip address 173.88.39.13 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial3/0

Router(config-if)#ip address 173.88.39.17 255.255.255.252

Router(config-if)#ip address 173.88.39.17 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet0/0

Router(config-if)#ip address 173.88.0.1 255.255.255.252

Router(config-if)#ip address 173.88.0.1 255.255.240.0

Router(config-if)#no shutdown

Router(config)#ip route 173.88.38.0 255.255.255.0 173.88.39.14

Router(config)#ip route 173.88.32.0 255.255.252.0 173.88.39.14

Router(config)#ip route 173.88.16.0 255.255.248.0 173.88.39.14

Router(config)#ip route 173.88.36.0 255.255.254.0 173.88.39.18

Router(config)#ip route 173.88.24.0 255.255.248.0 173.88.39.18

Router(config)#

Sylhet

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.18 255.255.0.0

Router(config-if)#ip address 173.88.39.18 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface Serial3/0

Router(config-if)#ip address 173.88.39.21 255.255.255.252

Router(config-if)#ip address 173.88.39.21 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet1/0

Router(config-if)#ip address 173.88.39.25 255.255.255.252

Router(config-if)#ip address 173.88.39.25 255.255.255.252

Router(config-if)#no shutdown

Router(config)#interface FastEthernet0/0

Router(config-if)#ip address 173.88.36.5 255.255.255.252

Router(config-if)#ip address 173.88.36.5 255.255.254.0

Router(config-if)#no shutdown

Router(config)#

Router(config)#ip route 173.88.0.0 255.255.255.0 173.88.39.17

Router(config)#ip route 173.88.38.0 255.255.254.0 173.88.39.17

Router(config)#ip route 173.88.16.0 255.255.248.0 173.88.39.17

Router(config)#ip route 173.88.32.0 255.255.252.0 173.88.39.17

Router(config)#ip route 173.88.24.0 255.255.248.0 173.88.39.22

Router(config)#ip route 0.0.0.0 0.0.0.0 173.88.39.17

Router(config)#

Router(config)#router rip

Router(config-router)#network 173.88.39.20

Router(config-router)#network 173.88.24.0

Router(config-router)#network 173.88.36.0

Router(config-router)#exit

CTG

Router(config)#interface Serial2/0

Router(config-if)#ip address 173.88.39.22 255.255.0.0

Router(config-if)#ip address 173.88.39.22 255.255.255.252

Router(config-if)#no shutdown

```
Router(config)#interface FastEthernet0/0
Router(config-if)#no ip address
Router(config-if)#shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down
ip address 173.88.24.5 255.255.255.252
Router(config-if)#ip address 173.88.24.5 255.255.248.0
Router(config-if)#no shutdown



Router(config)#
Router(config)#ip route 173.88.36.0 255.255.254.0 173.88.39.21
Router(config)#ip route 173.88.0.0  255.255.240.0 173.88.39.21
Router(config)#ip route 173.88.38.0 255.255.255.0 173.88.39.21
Router(config)#ip route 173.88.16.0 255.255.248.0 173.88.39.21
Router(config)#ip route 173.88.32.0 255.255.252.0 173.88.39.21
Router(config)#ip route 0.0.0.0 0.0.0.0 173.88.39.21
Router(config)#

Router(config)#router rip
Router(config-router)#network 173.88.39.20
Router(config-router)#network 173.88.36.0
Router(config-router)#network 173.88.24.0
Router(config-router)#
```

Device	Interface	IP address	Subnet Mask	Default Gateway
Dhaka	f0/0	173.88.0.1/20	255.255.240.0	No
	Se 2/0	173.88.39.13/30	255.255.255.252	
	Se 3/0	173.88.39.17/30	255.255.255.252	
Rajshahi	f0/0	173.88.16.5/21	255.255.248.0	No
	Se 2/0	173.88.39.5/30	255.255.255.252	
	Se 3/0	173.88.39.1/30	255.255.255.252	
Ctg	f0/0	173.88.24.5/21	255.255.248.0	No
	Se2/0	173.88.39.22/30	255.255.255.252	
Khulna	f0/0	173.88.32.5/22	255.255.252.0	No
	Se2/0	173.88.39.9/30	255.255.255.252	
	Se 3/0	173.88.39.2/30	255.255.255.252	
Sylhet	f0/0	173.88.36.5/23	255.255.254.0	No
	f1/0	173.88.39.25/30	255.255.255.252	
	Se 2/0	173.88.39.18/30	255.255.255.252	
	Se 3/0	173.88.39.21/30	255.255.255.252	
Rangpur	f0/0	173.88.38.5/24	255.255.255.0	No
	f1/0	173.88.39.26/30	255.255.255.252	
	Se 2/0	173.88.39.6/30	255.255.255.252	
	Se 3/0	173.88.39.10/30	255.255.255.252	
	Se 6/0	173.88.39.14/30	255.255.255.252	

Device	Interface	IP address	Subnet Mask	Default Gateway
PC0	f0/0	173.88.16.1/21	255.255.248.0	173.88.16.5
PC1	f0/0	173.88.16.2/21	255.255.248.0	173.88.16.5
PC2	f0/0	173.88.32.1/22	255.255.252.0	173.88.32.5
PC3	f0/0	173.88.32.2/21	255.255.248.0	173.88.32.5
PC4	f0/0	173.88.38.1/24	255.255.255.0	173.88.38.5
PC5	f0/0	173.88.38.2/24	255.255.255.0	173.88.38.5
PC6	f0/0	173.88.0.6/20	255.255.240.0	173.88.0.1
PC7	f0/0	173.88.0.5/20	255.255.240.0	173.88.0.1
AmarIccha	f0/0	173.88.0.3/20	255.255.240.0	173.88.0.1
PC8	f0/0	173.88.36.2/23	255.255.254.0	173.88.36.5
PC9	f0/0	173.88.36.3/23	255.255.254.0	173.88.36.5
AmraSylhetis com	f0/0	173.88.36.1/23	255.255.254.0	173.88.36.5
PC10	f0/0	173.88.24.1/21	255.255.248.0	173.88.24.5
PC11	f0/0	173.88.24.2/21	255.255.248.0	173.88.24.5