Assignment-III

Title: Subnetting

Broblem statement :

or python to demonstrate subnetting & find the subnet masks.

Objective: To be able to

- Understand the ancept of subnetting & subnet masks.

- Understand Ross-loss & Doss-Full address

Octrome: stradents will be able to

- Implement code to find about

mask of the given IP address.
- To understand analyst of class-loss & class full addressing scheme

S/W & H/W requirements: - 64 bit system with fedora OS, Eclipse JDF, J28F/python.

Netmask: A netmask is a 32-bit mask used to divide as IP address into subnets & specify the networks are available

In retards mask, 2 bits are always automotion -ally assigned & can't be used (0 4285) no of networks a network our support a (netmask length - no-of used segments) Ex. :- A 24-bit network Ps Netmask - 255 255 Binary mun 11111111 Network length total no of petrooks = 220-3 2 two 2 are substracted because of network & broadcast address that are already No of host a netmask con supportane er. For the 29 bit not mask. no. of hosts = 28-2 = 284 Given below are commonly used network classes they are also called dass-full addressing as the no of bits reserved for network idor

the network length ps freed

class'	Netmack length	No. of networks	No of hosts
class A	8	28-2	24
slass B	16	2 16 -2	16
class c	24	224-2	2 -2

Netmask of class A -> 285.0.0.0

class B -> 285.285.0.0

Class C -> 285.255.255.0

for class-less addressing, retmask longth is mentioned in the address & it is calculated by the binary conversion of ro of bits.

Ex. 192-168-2-0/20

Binony -	11111111	1 (1) 11 11	11110000	0000000
Netmask +	255.	255	1 240	0

Subnet Mask 1-

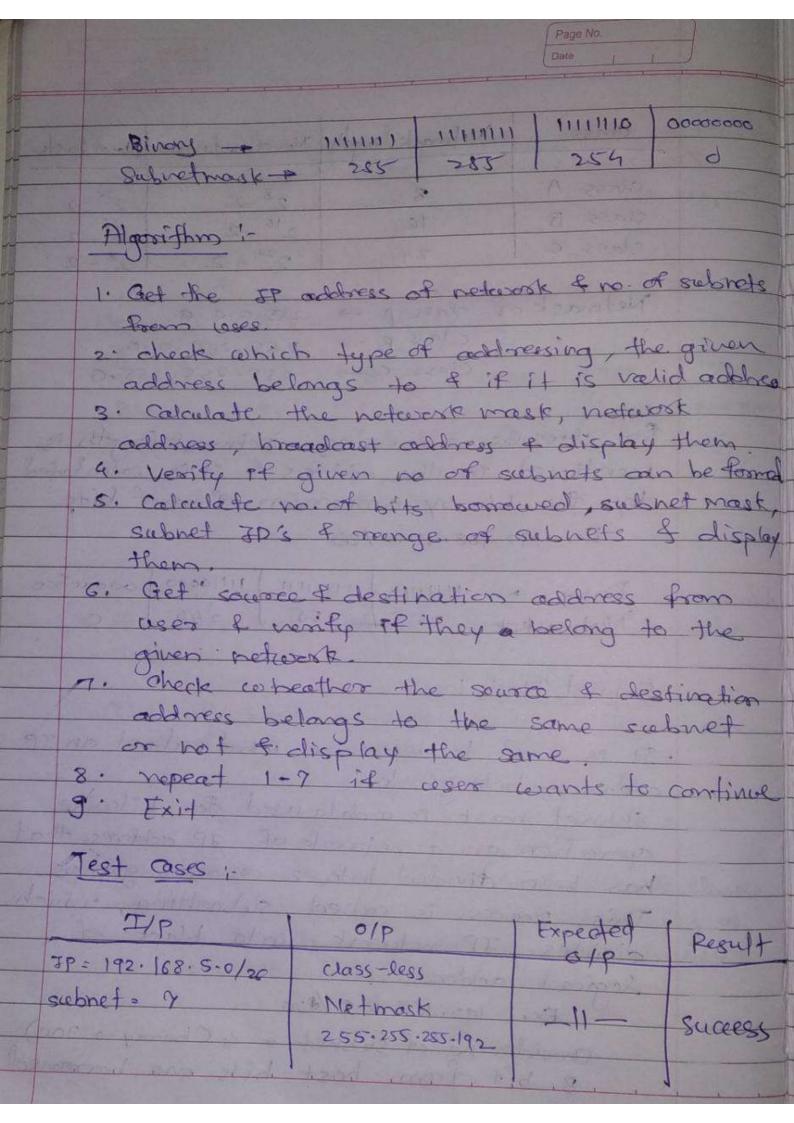
. It is used to determine what subject on IP address belongs to.

- Subnet mask is a data used fer bitwise openeration on a network of JP address that has been divided into 2 or more groups. This process is called subnetting, which divides JP network into blocks of logical addresses.

Ex. 192.168.20/828

Consider no of subject = 4 (bivery -> 700)

8. bit from host bits are barrowed



Page No. subnet mask Source 192.168.5.1 285.285.255.248 Success destinat Subnet JD's :-192-168-5-5 192.168.5.0, 192.168.5.8, 192.168.5.16, 192.168,5.24, 192.168.5.32, 192.168.5.40 192.168.5.40 192.168.5.56 142.162.5 They are in same Subnet

Conclusion: We have successfully calculated the subject mask of given JP address.

FD: 192.168-5.0