Rupesh Dharme. 31124 TE 01 Assignment 05	Parja Nn. (2 Cora: / /
Problem statement:	
Write a program to demor	strate
subnetting and find subnet mas	<u> </u>
Title: Subnetting	· · · · · · · · · · · · · · · · · · ·
The same of the sa	and the second second
Defination: to divide a network	into
smaller sections.	
Requirements:	<u> </u>
os: Windows 10 64 bits	<u> </u>
language : Python	<u>. 1 </u>
IDE/editor: vscode	and the second s
	and the second s
rearning objectives:	
students will be able to	understand
ip addressing and subnetting.	
Theory:	
ip address: It às a unique virtu	of aggress
given to a network device. It co	n be ctatic
which do not change or dynamic w	hich changes

. Teacher's Signature

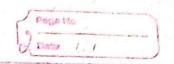
Type

0. 1PV6 128 bit

Types



Network classes: Networks are divided into classes based on their 18's, class AIBIC, DandE. Meed of subnetting: 1. to divide large network insmaller parts. 2. To connect networks across geographical 3. To connect different topologies. 4. To avoid physical limitations such as cable length etc. Explaining 1P mask. 192.168.5.5/26 This is a 32 bit long ip vy address followed by subnet mark 26 means 26 bits of subnet mask are 1. The subject mask can be used to find the range of IPs this IP can ping. 26 1111111.1111111.11111111.11000000 055.255.055.190 this is the mask for given ip.



Test cases

3.0				
cale	Input	Expected 0/p	actual o/p	reşult
1.	192.168.1.68	subnet:		
	/26	255.255.255.192	same	Pass
		pingable ip;	az	***
,		192.168.1.64 +0	expected	
0.	192.168.1.68/	subnet:		
	22	255.255.252.0	same	2200
		-Pingable IPS	as	barr
		192.168.0.0 10	expected	
		192.168.3.255		1
3	192.168155.68/	mask:		
	28	255.255.255.240	Same	Red
		192168 155.64 to	exp.	1 435
		142.168.155.74		2-1

Conclusion:

In this assignment we successfully understood the concept of subnetting and implemented code to find subnet mark and pingable IPS in python.

Teacher's Signeture

