

Computer Networks Lab

Assignment -1

Instructions for Part 1 - IP Addressing:

1. First Calculate all IP Addresses
2. Then fill in the table for => IP Address | Class | Usage | Type | Status

Instructions for Part 2 - PING:

1. Compile Screenshots in the Word Document for each part.

Instructions for Part 3 - TRACERT:

1. Compile Screenshots in the Word Document for each part.

Submission Details:

1. Please Upload a PDF file. (Convert your Word Document to PDF)
2. Filename format: name_studentID.pdf => adnan_201764.pdf
3. Plagiarism will result in Zero (0) marks in the assignment.

Part 1: IP Addressing

Question 1:

Calculate IP Addresses produced after applying the “formula (mathematical calculation for each IP)”. Identify Class, Private/Public, Valid/Invalid and Reserved/Not Reserved for each of calculated IP Address.

1. $1 * \text{Student-ID} \% 250$. $1 * \text{Student-ID} \% 200$. $1 * \text{Student-ID} \% 150$. $1 * \text{Student-ID} \% 100$.
2. $2 * \text{Student-ID} \% 250$. $2 * \text{Student-ID} \% 200$. $2 * \text{Student-ID} \% 150$. $2 * \text{Student-ID} \% 100$.
3. $3 * \text{Student-ID} \% 250$. $3 * \text{Student-ID} \% 200$. $3 * \text{Student-ID} \% 150$. $3 * \text{Student-ID} \% 100$.
4. $4 * \text{Student-ID} \% 250$. $4 * \text{Student-ID} \% 200$. $4 * \text{Student-ID} \% 150$. $4 * \text{Student-ID} \% 100$.
5. $5 * \text{Student-ID} \% 250$. $5 * \text{Student-ID} \% 200$. $5 * \text{Student-ID} \% 150$. $5 * \text{Student-ID} \% 100$.

Example: Student-ID = 201764

For first IP: $1 * 201764 \% 250$. $1 * 201764 \% 200$. $1 * 201764 \% 150$. $1 * 201764 \% 100$

IP: 14.164.14.64

Class: A

Usage: Public

Type: Valid

Status: Not Reserved

Similarly calculate all 5 IP Addresses and fill the table for -> IP Address | Class | Usage | Type | Status.

Part 2: PING

Question 2:

From the IP Addresses calculated in the “Question 1” use the 2nd, 3rd and 4th octet for constructing new IP addresses with “127” as the 1st Octet. Then perform any of the 3 options of the PING command on each of the IP Addresses. Insert the screenshot for each part.

Example:

Calculated IP = 14.**164.14.64**

New IP = 127.**164.14.64**

Part 3: TRACERT

Question 3:

Find Trace route of Google, Yahoo, Facebook, Instagram and WhatsApp using the tracert command (use “.com” as the domain for each site, e.g. whatsapp.com). Use any of the 3 options of tracert for each website. Insert the screenshot for each part.