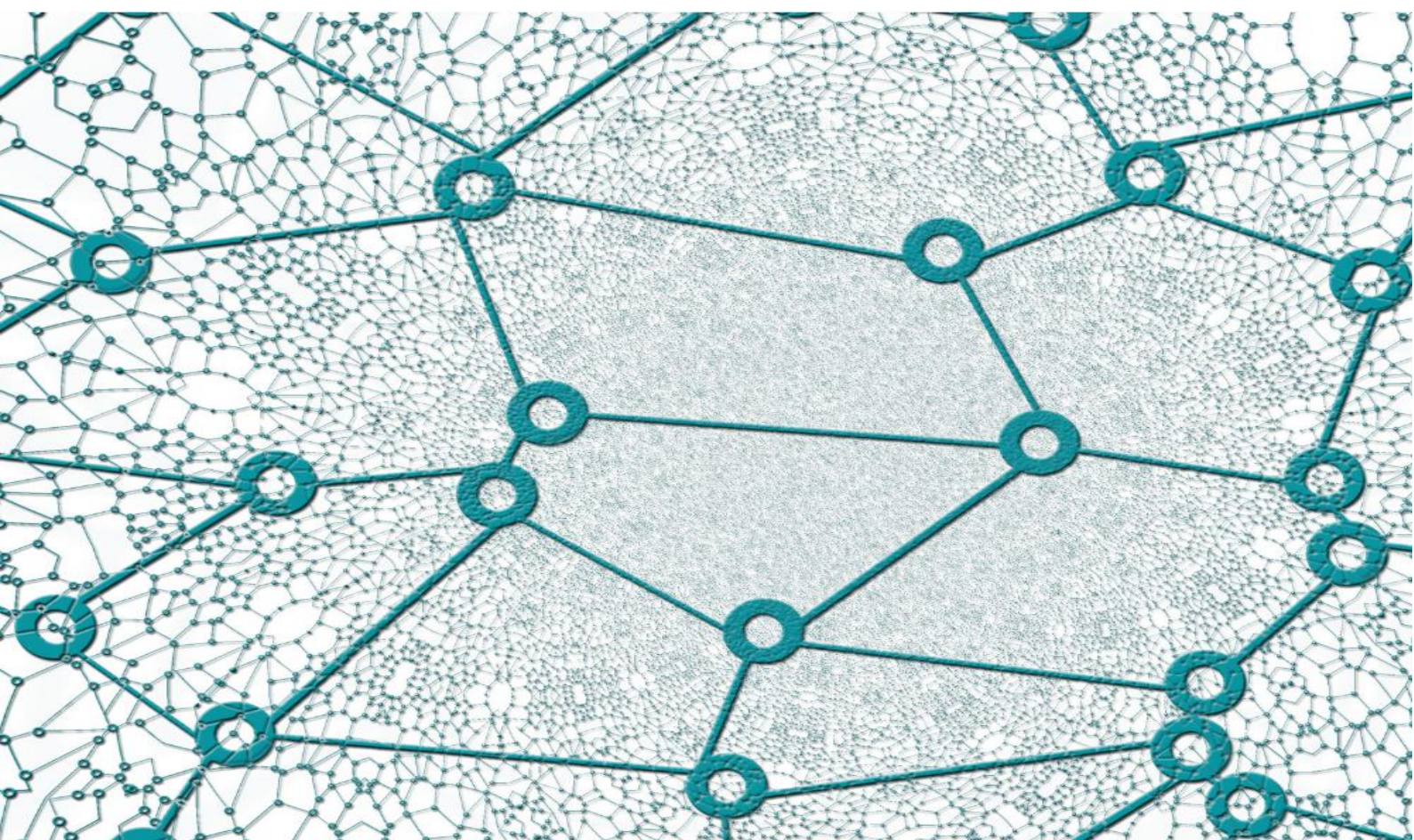


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# COMPUTER SYSTEMS SERVICING NCII GRADE 11

QUARTER 3 COC2:  
SETTING-UP COMPUTER NETWORKS



## ***SETTING-UP ADDRESS***

### ***Module 17***

## Computer Systems Servicing NCII – Grade 11

### Quarter 3 – Module 17: Setting-Up Address

First Edition, 2020

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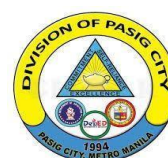
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# Introductory Message

For the facilitator:

Welcome to the **Computer Systems Servicing NCII G11** module on **Setting-Up Address**.

This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) in developing this instructional resource.

This learning material hopes to engage the learners in guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs, namely: Communication, Collaboration, Creativity, Critical Thinking, and Character while taking into consideration their needs and circumstances.

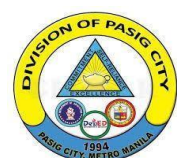
In addition to the material in the main text, you will also see this box in the body of the module:



## *Notes to the Teacher*

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the learner:

Welcome to Computer Systems Servicing NCII Module on Setting-Up address. The hand is one of the most symbolized part of the human body. It is often used to depict skill, action and purpose. Through our hands we may learn, create and accomplish. Hence, the hand in this learning resource signifies that you as a learner is capable and empowered to successfully achieve the relevant competencies and skills at your own pace and time. Your academic success lies in your own hands!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



**Expectation** – This points to the set of knowledge and skills that you will learn after completing the module.



**Pretest** – This measures your prior knowledge about the lesson at hand.



**Recap** – This part of the module provides a review of concepts and skills that you already know about a previous lesson.



**Lesson** – This section discusses the topic in the module.



**Activities** – This is a set of activities that you need to perform.



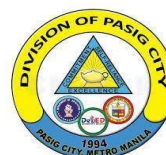
**Wrap-Up** – This section summarizes the concepts and application of the lesson.



**Valuing** – This part integrates a desirable moral value in the lesson.



**Posttest** – This measures how much you have learned from the entire module.





## EXPECTATIONS

After completing this lesson, you should be able to:

1. Know the difference of static and dynamic configuration;
2. Apply the process on setting-up static and dynamic address;
3. Appreciate the importance of knowing the process on setting-up address.



## PRETEST

**DIRECTION:** Read the following statement carefully. Choose the best answer by encircling your answer.

1. What does DHCP stand for?
  - a. Dynamic Hyper Computer Protocol
  - b. Dynamic Host Configuration Protocol
  - c. Dynamic Host Computer Protocol
  - d. Dynamic Hyper Configuration protocol
2. Which of the following is the correct arrangement on how to configure a static IPv4 address?
  - i. Run command by pressing windows key + r
  - ii. Type ncpa.cpl then click ok or press enter.
  - iii. Right click on your local adapter and select properties.
  - iv. Select the radial button "Use the following IP address".
  - v. Select the radial button "obtain an IP address automatically".
  - a. i-ii-iii-iv
  - b. i-ii-iii-v
  - c. iii-i-ii-iv
  - d. iii-i-ii-v
3. Which of the following is not useful when configuring a static IP address?
  - a. 192.168.1.1
  - b. Subnet Mask
  - c. ipconfig/renew
  - d. ncpa.cpl
4. We can check whether the network adapter settings have been changed successfully using command prompt. Which of the following line should be entered in command prompt to accomplish this?
  - a. ipconfig/renew
  - b. ncpa.cpl
  - c. ipconfig
  - d. netstat
5. The ncpa.cpl is a Microsoft Windows connections properties control panel file. What does ncpa stand for?
  - a. Network Configuration Protocol Application
  - b. Network Control Protocol Application
  - c. Network Control Panel Applet
  - d. Network Configuration Panel Application



## **RECAP**

- On our last module, we have learned that 192.168.1.131 is an example of an IPv4 address. The IPv4 is divided into four groups which called octet and each octet is equivalent to 8 bits. An IPv4 address is a 32-bit address because when we combined all of those 8 bits of four, we will have a total of 32.
- We have also learned that fe80::5d18:652:cffd:8f52 is an example of an IPV6 address. IPv6 is an update to IPV4 which greatly expands the capabilities of an IP protocol.
- With an IPv4 address, people can have approximately millions unique addresses around the globe. But with the IPv6 you can have Undecillion addresses around the globe.
- Writing out the entire IPv6 address is not easy because of its length. But we can abbreviate and compress this address down to smaller size that will make easier for us to manage.

## **LESSON**

### **INTRODUCTION**

When organizing your home network, it's easier to assign each computer its own IP address than using DHCP or Dynamic Host Configuration Protocol. Here we will take a look at doing it in Windows 7, Windows 8 and Windows 10.

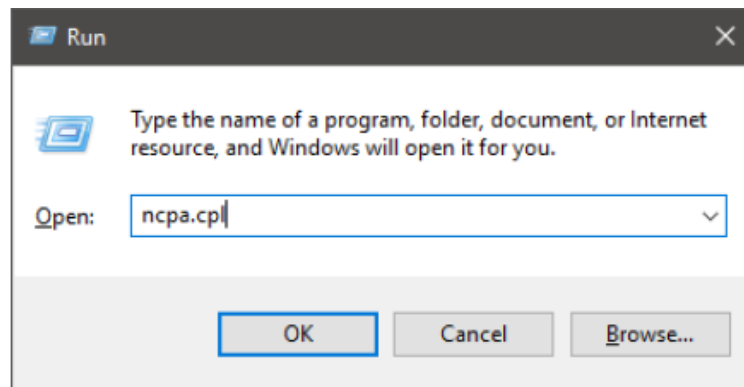
If we have a home network with several computers and devices, it is always a good idea to assign each of them a specific address. It would save a lot of time figuring out what IP do you have when doing troubleshooting on your network. When you use DHCP or Dynamic Host Configuration Protocol, each computer will request an IP address to the server and the server will assign automatically a vacant IP address for your computer. It will repeat this kind of process each time the computer booted up. Therefore, there is a chance that the IP address of your computer before is not the same as it is booted up now. It is annoying going to each computer to figure out what IP they have. This method of assigning an IP address is known as dynamic.

The other way of assigning an IP address is known as static. Using Static IPs prevents address conflicts between devices and allows you to manage them more easily. Assigning IPs to Windows is essentially the same process but getting to where you need to be depends between each version.

## IPv4 Address Static Configuration

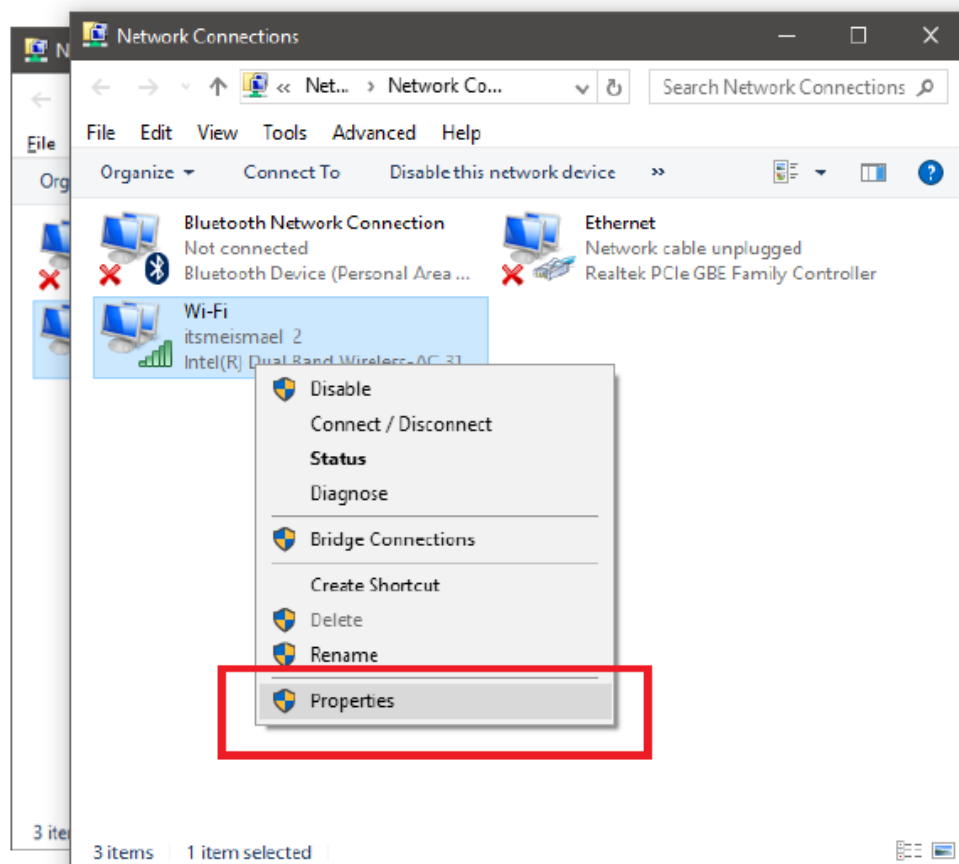
If you are using windows 7, windows 8, windows server or windows 10, do the following instructions.

- Run command by pressing windows key + r
- Type ncpa.cpl then click ok or press enter.

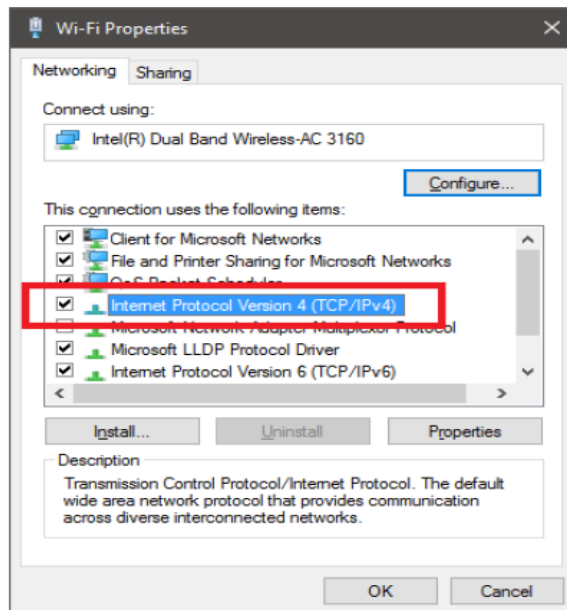


The ncpa.cpl is a Microsoft Windows connections properties control panel file. The ncpa means network control panel applet while cpl means control panel.

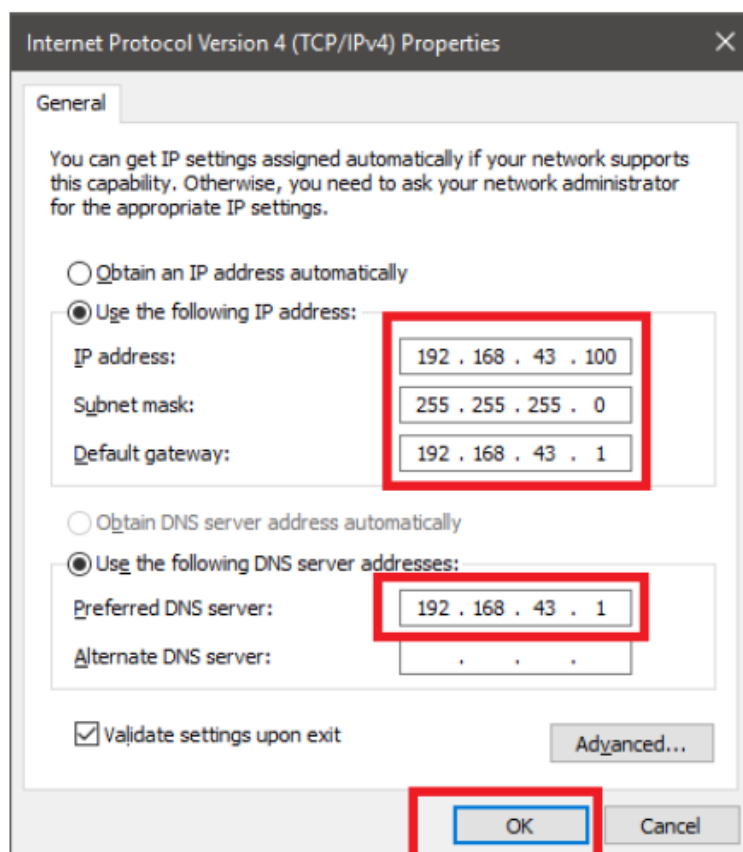
- Right click on your local adapter and select properties.



- In the Local Area Connection Properties windows highlight Internet Protocol Version 4 (TCP/IPv4) then click Properties button.



- Now, select the radial button “Use the following IP address” and enter in the correct IP, subnet mask and default gateway that corresponds with your network setup. Then enter your preferred and alternate DNS server addresses.





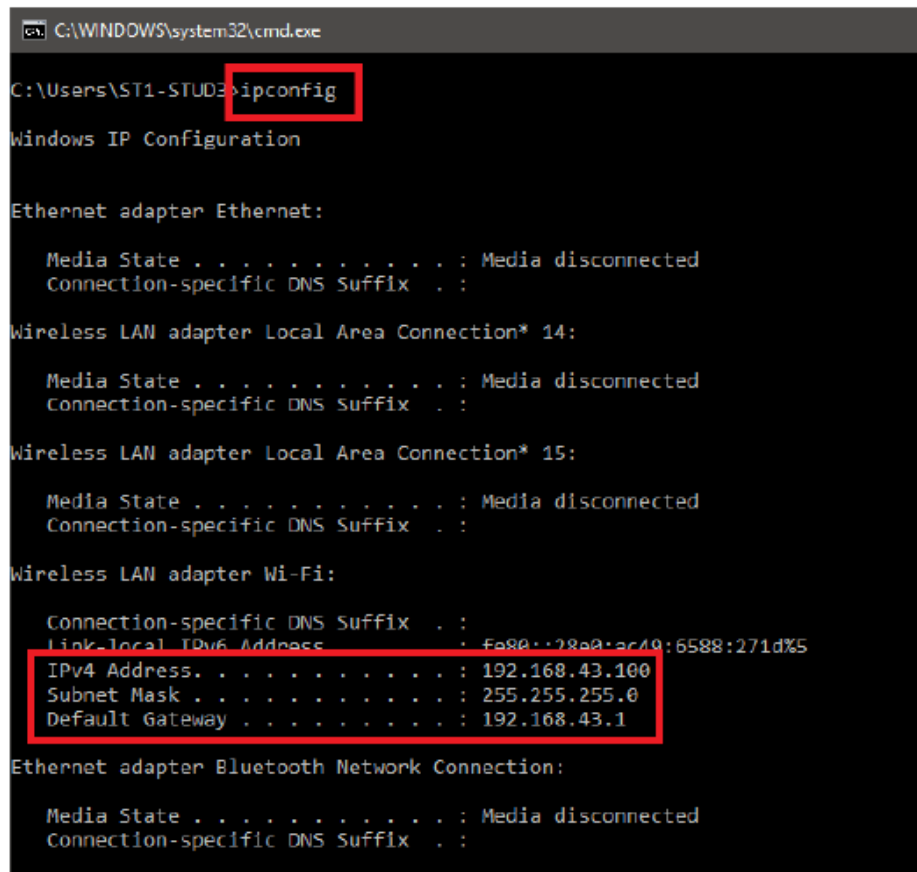
- When you're finished click OK.

Please be reminded that setting the correct values for IP, subnet mask and default gateway is very important in configuring a static IP address. You need to make sure that all of the details about this configuration has been noted before you change settings from dynamic to static.

## Command Prompt

Now, we will be using the command prompt in order to check whether the network adapter settings have been changed successfully.

- Run command by pressing windows key + r again.
- Type cmd then click ok or press enter.
- Type ipconfig and then press enter.



```

C:\WINDOWS\system32\cmd.exe

C:\Users\ST1-STUD>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 14:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 15:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::28a0:3c49:6588:271d%5
    IPv4 Address. . . . . : 192.168.43.100
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.43.1

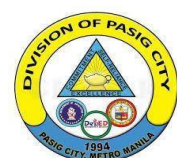
Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
  
```

## IPv4 Address Dynamic Configuration

If you want to set your configuration back to dynamic, just follow the instructions below.

- Run command by pressing windows key + r



- Type `ncpa.cpl` then click ok or press enter.
- Right click on your local adapter and select properties.
- In the Local Area Connection Properties windows highlight Internet Protocol Version 4 (TCP/IP/IPv4) then click Properties button.
- Now, select the radial button “obtain an IP address automatically”.
- When you’re finished click OK.

There are times that the computers or devices will obtain the IP address immediately after doing the configuration above. However, if it didn’t obtain an IP address automatically after doing this set up, we need to take one more step using the command prompt in order to make this work.

- Run command by pressing windows key + r
- Type `cmd` then click ok or press enter.
- Inside the command prompt, type `ipconfig/release`

```

C:\ Command Prompt
Microsoft Windows [Version 10.0.18363.1379]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\DESKTOP- [redacted]>ipconfig/release

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::905e:39a5:e35d:f32%15
    Default Gateway . . . . . : 

C:\Users\DESKTOP-RMHARSY>

```

- Then type `ipconfig/renew`

```

C:\ Command Prompt
Microsoft Windows [Version 10.0.18363.1379]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\DESKTOP-RMHARSY>ipconfig/renew

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::905e:39a5:e35d:f32%15
    IPv4 Address. . . . . : 192.168.1.6
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Users\DESKTOP-RMHARSY>

```



## ACTIVITIES

**DIRECTION:** Arrange the following sequence of steps to IPv4 address static configuration. Write numbers 1-5 on the blank line.

- \_\_\_\_\_ 1. Type ncpa.cpl then click ok or press enter.
- \_\_\_\_\_ 2. Run command by pressing windows key + r.
- \_\_\_\_\_ 3. In the Local Area Connection Properties windows highlight Internet Protocol Version 4 (TCP/IP/IPv4) then click Properties button.
- \_\_\_\_\_ 4. Right click on your local adapter and select properties.
- \_\_\_\_\_ 5. Select the radial button “Use the following IP address” and enter in the correct IP, subnet mask and default gateway that corresponds with your network setup.

## WRAP-UP

The ncpa.cpl is a Microsoft Windows connections properties control panel file. The ncpa means network control panel applet while cpl means control panel.

The other way of assigning an IP address is known as static. Using Static IPs prevents address conflicts between devices and allows you to manage them more easily. Assigning IPs to Windows is essentially the same process but getting to where you need to be depends between each version.

There are times that the computers or devices will obtain the IP address immediately after doing the configuration inside the network control panel. However, if it didn't obtain an IP address automatically after doing this set up, we need to use the command prompt to release and renew the IP address to make this work.

## VALUING

**DIRECTION:** Read the following statement carefully. Write your answer in two to three sentences each number.

1. List down the difference between configuring static address and dynamic address?

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2. Cite a situation in which you can apply the knowledge about configuring a static address.

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## POST TEST

**DIRECTION:** Read the following statement carefully. Choose the best answer by encircling your answer.

1. What does DHCP stand for?
  - a. Dynamic Hyper Computer Protocol
  - b. Dynamic Host Configuration Protocol
  - c. Dynamic Host Computer Protocol
  - d. Dynamic Hyper Configuration protocol
2. Which of the following is the correct arrangement on how to configure a static IPv4 address?
  - vi. Run command by pressing windows key + r
  - vii. Type ncpa.cpl then click ok or press enter.
  - viii. Right click on your local adapter and select properties.
  - ix. Select the radial button "Use the following IP address".
  - x. Select the radial button "obtain an IP address automatically".
  - a. i-ii-iii-iv
  - b. i-ii-iii-v
  - c. iii-i-ii-iv
  - d. iii-i-ii-v
3. Which of the following is not useful when configuring a static IP address?
  - a. 192.168.1.1
  - b. Subnet Mask
  - c. ipconfig/renew
  - d. ncpa.cpl
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  - a. ipconfig/renew
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5. The ncpa.cpl is a Microsoft Windows connections properties control panel file. What does ncpa stand for?
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  - c. Network Control Panel Applet
  - d. Network Configuration Panel Application







# KEY TO CORRECTION

Post Test	Activity	Pre Test
1. B	1. 2	1. B
2. A	2. 1	2. A
3. C	3. 4	3. C
4. C	4. 3	4. C
5. C	5. 5	5. C

## REFERENCES

<https://www.quora.com/What-does-NCPA-in-the-ncpa-cpl-command-stand-for>

<https://www.computerhope.com/cgi-bin/process.pl?p=ncpa.cpl>

<https://www.iplocation.net/find-ip-address>

<https://www.howtogeek.com/howto/19249/how-to-assign-a-static-ip-address-in-xp-vista-or-windows-7/>

