Laboratory work 1.

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[**2.3.7 - Packet Tracer - Navigate the IOS**](https://contenthub.netacad.com/itn#2.3.7)

**Part 1.**

***Step 2.***

Question b)

What is the setting for bits per second?

Answer: 9600.

Question c)

What is the prompt displayed on the screen?

Answer: S1>

***Step 3.***

Question a)

Which command begins with the letter ‘C’?

Answer: connection

Question b)

Which commands are displayed t?

Answer: telnet terminal traceroute

Which commands are displayed te ?

Answer: telnet terminal

**Part 2.**

***Step 1.***

Question a)

What information is displayed for the **enable** command?

Answer: Turn on privileged commands

Question b)

What displays after pressing the **Tab** key?

Answer: enable

What would happen if you typed **te<Tab>**at the prompt?

Answer: There is more than one command that begins with the letters ‘te’ because ‘te’ does not provide enough characters to make the command unique. The characters will continue to display, prompting the user for additional characters to make the command unique.

Question c)

Question:

How does the prompt change?

Answer: It changes from S1> to S1#, which indicates privileged EXEC mode.

Question d)

Answer: 5 – clear, clock, configure, connect, and copy

**Step 2.**

Question a)

What is the message that is displayed?

Answer: Configuring from terminal, memory, or network [terminal]?

Question b)

How does the prompt change?

Answer: S1(config)#

**Part 3.**

***Step 1.***

Question a)

What information is displayed? What is the year that is displayed?

Answer: \*11:28:25.490 UTC Mon Mar 1 1993

Question b)

What information is displayed?

Answer: % Incomplete command.

Question c)

What information is displayed?

Answer: set Set the time and date

Question d)

What information is being requested?

Answer: What information is being requested?

What would have been displayed if only the **clock set** command had been entered, and no request for help was made by using the question mark?

Answer: % Incomplete command.

***Step 2.***

Question b)

S1# **cl<tab>**

Questions:

What information was returned?

Answer: % Ambiguous command: "cl "

S1# **clock**

Question:

What information was returned?

Answer: % Incomplete command.

S1# **clock set 25:00:00**

Question:

What information was returned?

Answer: % Invalid input detected at '^' marker.

S1# **clock set 15:00:00 32**

Question:

What information was returned?

Answer: % Invalid input detected at '^' marker.

[**2.5.5 - Packet Tracer - Configure Initial Switch Settings**](https://contenthub.netacad.com/itn#2.5.5)

## Part 1: Verify the Default Switch Configuration

### Step 2: Examine the current switch configuration.

1)How many Fast Ethernet interfaces does the switch have?

2)How many Gigabit Ethernet interfaces does the switch have?

3)What is the range of values shown for the vty lines?

4)Which command will display the current contents of non-volatile random-access memory (NVRAM)?

5)Why does the switch respond with “startup-config is not present?”

Answers:

1. 24
2. 2
3. line vty 0 4

line vty 5 15

1. show startup-config
2. The switch responds with “startup-config is not present” because the start up configuration hasn’t been saved yet. Why is the login command required? The login command is required because it makes it so the user will be prompted with a login request. without it, the user won’t be able to access the router.

## Part 2: Create a Basic Switch Configuration

### Step 2: Secure access to the console line.

Why is the **login** command required?

Answer: Login command is used in VTY for password that is specified to be checked at login. If you do not use login command you will not able to use the specified password for the vty to login.

### Step 7: Verify that the enable secret password is added to the configuration file.

1)What is displayed for the enable secret password?

2)Why is the enable secret password displayed differently from what we configured?

Answers:

1) enable secret 5 $1$mERr$ILwq/b7kc.7X/ejA4Aosn0

enable password c1$c0

2) **The enable secret is shown in encrypted form, whereas the enable password is in plain text.**

### Step 8: Encrypt the enable and console passwords.

If you configure any more passwords on the switch, will they be displayed in the configuration file as plain text or in encrypted form? Explain.

Answer: **The service password-encryption command encrypts all current and future passwords.**

## Part 3: Configure a MOTD Banner

### Step 1: Configure a message of the day (MOTD) banner.

When will this banner be displayed?

Answer: **The message will be displayed when someone accesses the switch through the console port.**

Why should every switch have a MOTD banner?

Answer: **Every switch should have a banner to warn unauthorized users that access is prohibited. Banners can also be used for sending messages to network personnel/technicians (such as impending system shutdowns or who to contact for access).**

## Part 4: Save and Verify Configuration Files to NVRAM

### Step 1: Verify that the configuration is accurate using the show run command.

1)What is the shortest, abbreviated version of the **copy running-config startup-config** command?

2)Examine the startup configuration file.

3)Which command will display the contents of NVRAM?

4)\_Are all the changes that were entered recorded in the file?

Answers:

1. **cop r s**
2. show startup-config
3. **Yes, it is the same as the running configuration.**

[**2.7.6 - Packet Tracer - Implement Basic Connectivity**](https://contenthub.netacad.com/itn#2.7.6)

## Part 1: Perform a Basic Configuration on S1 and S2

### Step 3: Verify the password configurations for S1.

#### Question:

1)How can you verify that both passwords were configured correctly?

Answer: After you exit user EXEC mode, the switch will prompt you for a password to access the console interface and will prompt you a second time when accessing the privileged EXEC mode. You can also use the show run command to view the passwords.

### **Step 4: Save the configuration file to NVRAM.**

#### Question:

1)Which command do you issue to accomplish this step?

Answer: S1(config)# exit (or end) S1# copy run start

## Part 2: Configure the PCs

### Step 2: Test connectivity to switches.

Packet Tracer PC Command Line 1.0

PC> **ping 192.168.1.253Question:**

Were you successful? Explain.

Answer: Your ping should have been unsuccessful because the switches have not been configured with an IP address.

## Part 3: Configure the Switch Management Interface

## Step 1: Configure S1 with an IP address.

If this is the case, why would we configure it with an IP address?

Answer: To connect remotely to a switch, you need to assign an IP address to it. The default configuration on the switch is to have the management of the switch controlled through VLAN 1.

Why do you enter the **no shutdown** command?

Answer: The no shutdown command administratively places the interface in an active state.

### **Step 4: Save configurations for S1 and S2 to NVRAM.**

#### QWhich command is used to save the configuration file in RAM to NVRAM?

Answer: copy running-config statrup-config