**LAB JOURNAL BASED ON SKILLS SAMPLE A**

**(Sample Skills A (Subnetting A) Demo)**

**❑ Start with these commands on all devices (Router, Switches)**

1. Switch# sh startup-config

2. Switch(config)# no ip domain-lookup

3. Switch(config)# line con 0

Switch (config)# logging synchronous

Switch (config) # exit

**❑ Follow these Sequence during exam.**

1. Hostname

2. Banner Motd

3. Configure SSH

4. Create VLANs on both Switches

5. Configure Vlan Membership ---> Enable access ports and allocate to the Specific VLAN

6. Configure Trunking on Both Switches

7. Router-on-a-stick ---> Configure Router Sub-interfaces

8. Configure Interface VLAN ---> Configure management ip address on both switches

9. Configure default-gateway on both switches

10. Configure Loopback on router

11. Configure Etherchannel Bundling on both Switches

12. Configure Root Bridge (STP) for vlans on Switches

13. Configure Switchport Security

**❑ Hostname on All Devices**

Switch(config)# hostname Curly

Curly(config) # exit

**❑ MOTD on All devices**

Switch(config)# banner motd $NAME STUDENT ID$

Switch(config) # exit

**❑ Configure SSH access on both Switches and on Router**

Switch(config)# ip domain-name ccna.lab

Switch(config)# crypto key generate rsa general-keys modulus 1024

Switch(config)# username sample privilege **15** secret exam

Switch(config)# line vty 0 **15**

Switch(config-line)# transport input ssh

Switch(config-line)# exit

**NOTE:** During SSH Configuration on Router use “**4** “ instead of “**15**”

**❑ Create VLANs On Both Switches**

Switch(config)# vlan 5

Switch(config-vlan)# name Three

Switch(config-vlan)#vlan 45

Switch(config-vlan)#name Stooges

**❑ Configure VLAN Membership – (**Enable access ports on switch and allocate to the Specific VLAN)

Switch(config)# int range f0/13 – 16

Switch(config-if-range)# switchport mode access

Switch(config-if-range)# switchport access vlan 45

**NOTE: Enable Router g0/0/1 interface ---**

Router(config)# int g0/0/1

Router(config)# no shutdown

Router(config-if-range)# exit

**❑ Configure Switchport Trunking on both Switches**

Switch(config)# int range f0/1-2

Switch(config-if-range)# switchport mode trunk

Switch(config-if-range)# exit

**❑ Configure Router-on-a-stick ( Configure Router Sub-interfaces )**

Router(config) # int g0/0/1.5

Router(config-subif) # description to VLAN 5

Router(Config-subif)# encapsulation dot1Q 5

Router(config-subif)# ip address 83.174.126 255.255.255.128

**Note:** Same way configure all the sub-interfaces with ip address on router.

**❑ Configure Interface VLAN ( Configure management IP on both switches )**

Switch(config)# int vlan 150

Switch(config-if)# ip address 55.256.16.253 255.255.255.240

Switch(config-if)# exit

**❑ Configure Etherchannel bundling on both Switches.**

Switch1(config)# int range f0/1 – 2

Switch1(config-if-range)# shutdown

Switch1(config-if-range)# channel-group 1 mode active

Switch1(config-if-range)# no shutdown

Switch(config-if-range)# exit

Switch2(config)# int range g1/0/1 – 2

Switch2(config-if-range)# channel-group 1 mode active

Switch2(config-if-range)#exit

**❑ Configure default-gateway on both switches**

Switch(config)# ip default-gateway 83.174.16.166

Switch(config)# exit

**NOTE:** Default-gateway ip-address would be the address that we used on router management vlan sub-interface ip address.

**❑ Configure Loopback on router**

Router(config)# int loopback 0

Router(config)# ip address 93.216.87.1 255.255.255.248

Router(config)# exit

**❑ Configure Root bridge (STP) for VLANs on both Switches**

Switch01(Config)# spanning-tree vlan 5, 451 root primary

Switch01(config)# exit

Switch02(Config)# spanning-tree vlan 45, 278 root primary

Switch02(config)# exit

**❑ Configure Switchport-Security**

Switch(config)# int range f0/18 – 22

Switch(config-if-range)# switchport mode access

Switch(config-if-range)# switchport port-security

**\*\*\* Switchport Security mode of “protect”**

Switch(config-if-range)# switchport port-security violation **protect**

**\*\*\* Security mode of “mac address sticky”**

Switch(config-if-range)# switchport port-security **mac-address sticky**

**\*\*\* A maximum of 4 connected devices**

Switch(config-if-range)# switchport port-security **maximum 4**