

MID TERM ASSIGNMENT SPRING 2020

NAME: FAIZULLAH KHAN

ID: 14840

DEPARTMENT: BS (SE)

SECTION: B

PAPER: NETWORKING LABE

Q1: Construct a network topology which have one router?

Ans:

The screenshot displays the Cisco Packet Tracer interface. The main workspace shows a network topology with a central Router (Router0) connected to three switches (Switch2, Switch3, and Switch4). The Router has IP addresses 192.168.1.10 and 192.168.2.20. Switch2 is connected to PC0 (192.168.1.1) and PC1 (192.168.1.2). Switch3 is connected to PC2 (192.168.2.1) and PC3 (192.168.2.2). Switch4 is connected to PC0 and PC1. The Event List panel on the right shows a table of events:

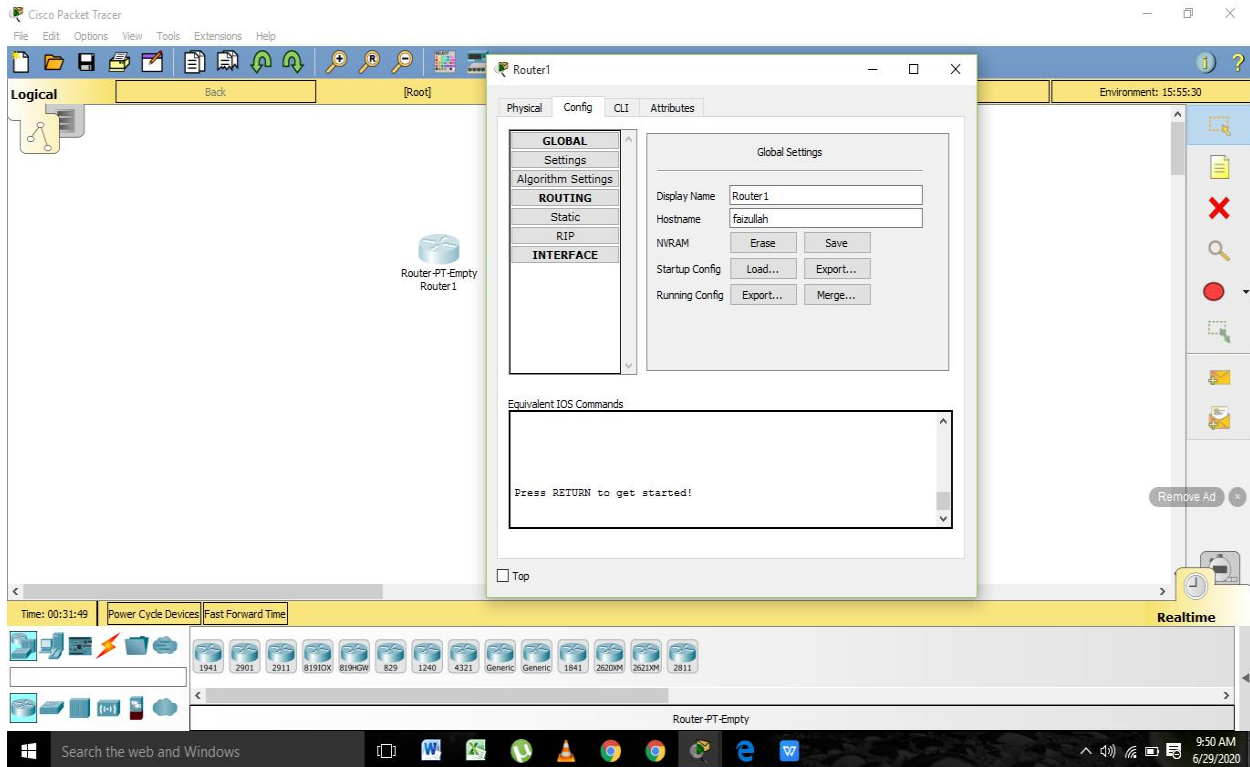
Vis.	Time(sec)	Last Device	At Device	Type	Info
	0.004	Switch2	PC0	ICMP	
	0.005	PC0	Switch2	ICMP	
	0.006	Switch2	Router0	ICMP	
	0.007	Router0	Switch3	ICMP	
	0.008	Switch3	PC3	ICMP	
	1.754	--	Switch2	STP	
	1.755	Switch2	PC0	STP	
	1.755	Switch2	PC1	STP	
	1.755	Switch2	Router0	STP	

The Simulation panel at the bottom right shows a table of simulation events:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Eq
	Successful	PC3	PC0	ICMP		0.000	N	0	(e

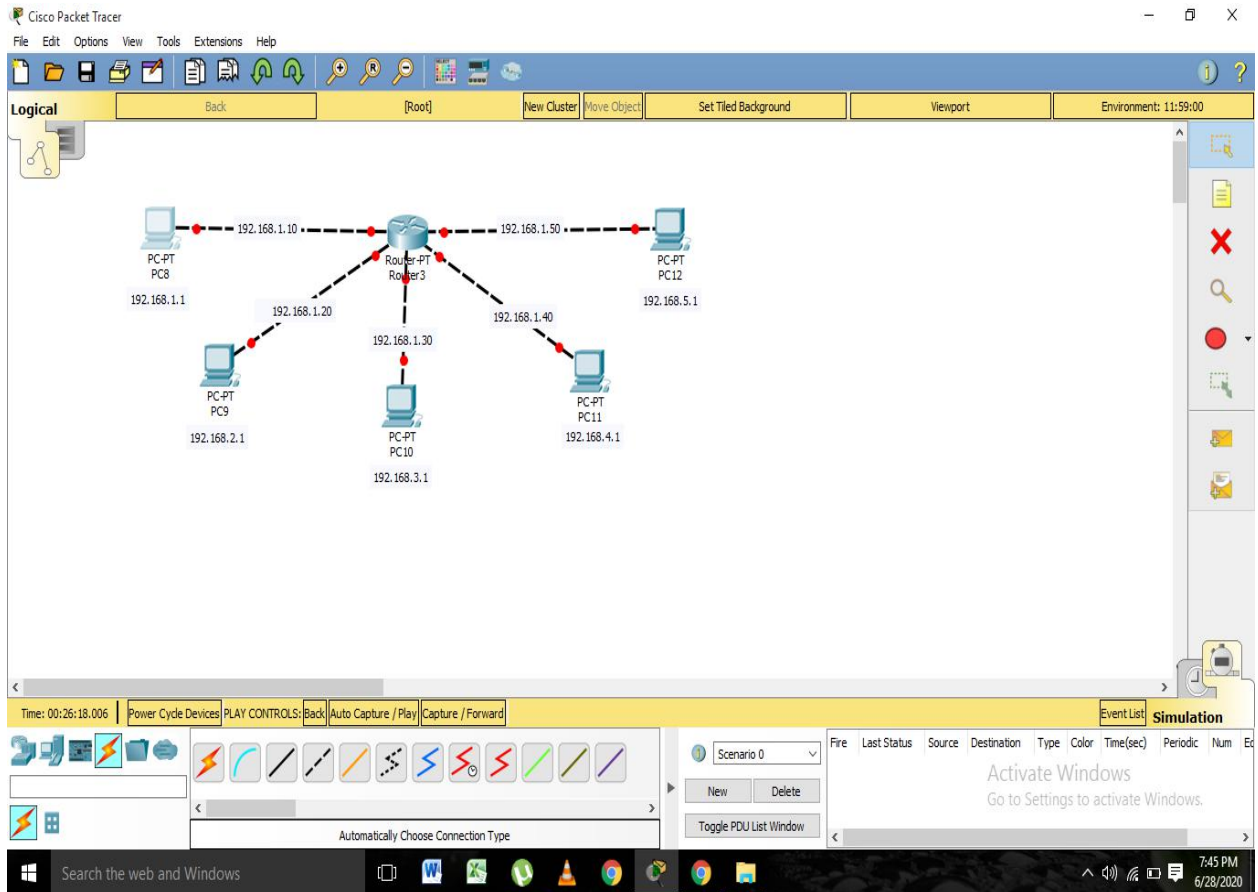
Q2: Give hostname to the router with your name like Muhammad Ali?

Ans:



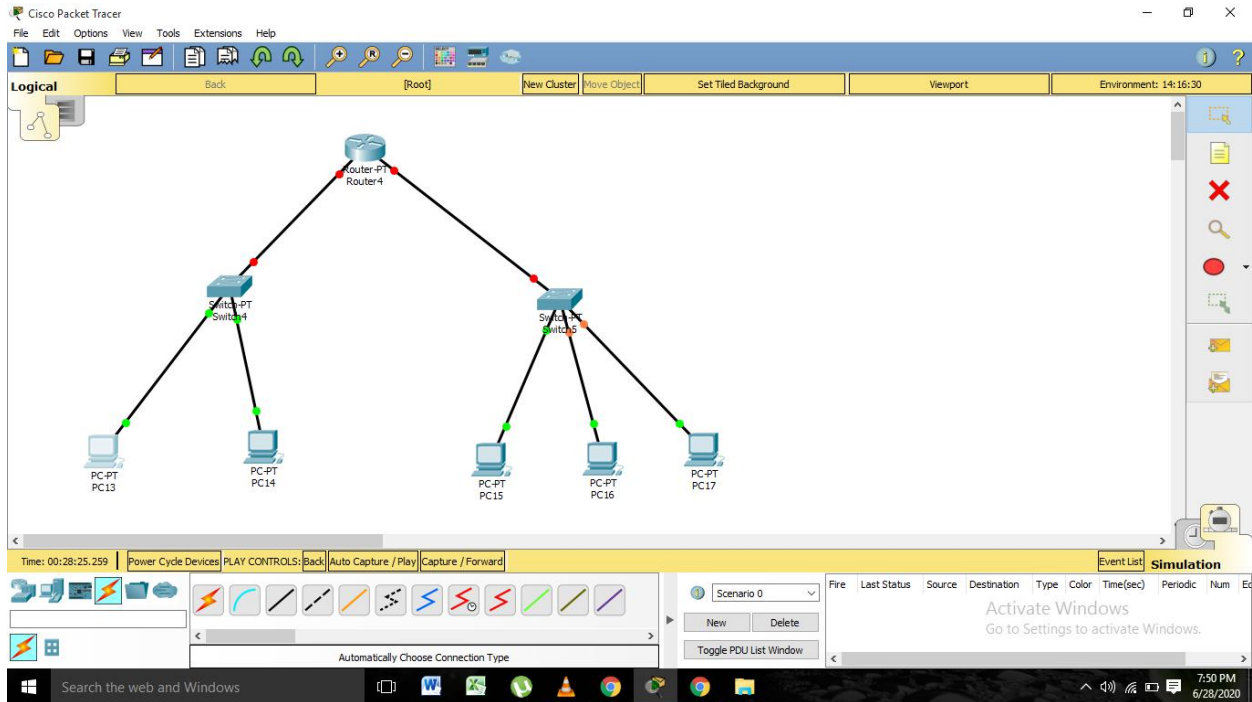
Q6: Router is connected with five computers?

Ans:



Q7: Also connect two switches with router which is connected with two of the from one side and with other side?

Ans:



Q 08: Assign the computers switches and router proper IP Address subnet mask and default gateway?

Ans:

The screenshot shows the Cisco Packet Tracer interface with a network diagram and the configuration window for PC18. The network diagram features a central Router4 (192.168.1.10) connected to two switches, Switch1 and Switch2. Switch1 is connected to PC18 (192.168.1.1) and PC14 (192.168.1.2). Switch2 is connected to PC15 (192.168.2.1) and PC16 (192.168.2.2). The configuration window for PC18 is open to the IP Configuration tab, showing the following settings:

Category	Option	Value
IP Configuration	Static	<input checked="" type="radio"/>
	IP Address	192.168.1.1
	Subnet Mask	255.255.255.0
	Default Gateway	192.168.1.10
IPv6 Configuration	Static	<input checked="" type="radio"/>
	IPv6 Address	
	Link Local Address	FE80::202:16FF:FE2C:7543
	IPv6 Gateway	
	IPv6 DNS Server	

The screenshot shows the Cisco Packet Tracer interface with the same network diagram and the configuration window for Router4. The configuration window is open to the Config tab, showing the configuration for the FastEthernet0/0 interface. The configuration includes the following settings:

Category	Setting	Value
GLOBAL	Port Status	<input checked="" type="checkbox"/> On
	Bandwidth	100 Mbps
ROUTING	Static	<input checked="" type="checkbox"/>
	RIP	<input type="checkbox"/>
INTERFACE	FastEthernet0/0	<input checked="" type="checkbox"/>
	IP Address	192.168.1.10
	Subnet Mask	255.255.255.0
	Serial2/0	<input type="checkbox"/>
	Serial3/0	<input type="checkbox"/>

The Equivalent IOS Commands section shows the following commands:

```
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.10 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#end
```

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Back [Root] New Cluster Move Objects

PC18

Physical Config Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Port Status

Bandwidth

Duplex

MAC Address 0002.162C.7543

IP Configuration

DHCP

Static

IP Address 192.168.1.1

Subnet Mask 255.255.255.0

IPv6 Configuration

DHCP

Auto Config

Static

IPv6 Address

Link Local Address: FE80::202:16FF:FE2C:7543

Time: 00:31:52.651 Power Cycle Devices PLAY CONTROLS: Back Auto Capture / Play Capture / Forward

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Ed

Activate Windows

Go to Settings to activate Windows.

8:06 PM 6/28/2020

```
graph TD; Router4[Router-PT Router4] --- S1[Switch-PT Switch1]; Router4 --- S2[Switch-PT Switch2]; S1 --- PC18[PC-PT PC18]; S1 --- PC14[PC-PT PC14]; S2 --- PC15[PC-PT PC15]; S2 --- PC16[PC-PT PC16];
```

192.168.1.10 Router-PT Router4 192.168.2.20

192.168.1.1 PC-PT PC18 192.168.1.2 PC-PT PC14 192.168.2.1 PC-PT PC15 192.168.2.2 PC-PT PC16

Q 09: configure router CLI command and ping PC to other and show the result?

Ans:

The screenshot displays the Cisco Packet Tracer interface. On the left, a network diagram shows a central Router (PT) connected to two PCs (PC0 and PC1). The Router has IP addresses 192.168.1.10 and 192.168.2.20. PC0 has IP 192.168.1.1 and PC1 has IP 192.168.2.1. The Router is connected to PC0 via a dashed line and to PC1 via a solid line.

The main window shows the Router's CLI interface with the following commands and output:

```
Router#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastethernet 0/1
%Invalid interface type and number
Router(config)#interface fasetethernet
^
% Invalid input detected at '^' marker.

Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet1/0
Router(config-if)#ip address 192.168.2.20 255.255.255.0
Router(config-if)#shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet1/0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0,
changed state to up
```

The bottom status bar shows the time as 00:49:14, the mode as Realtime, and the system tray with the date 6/28/2020 and time 9:05 AM.