

**Practice Assignment 7.2**

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***Instruction:***

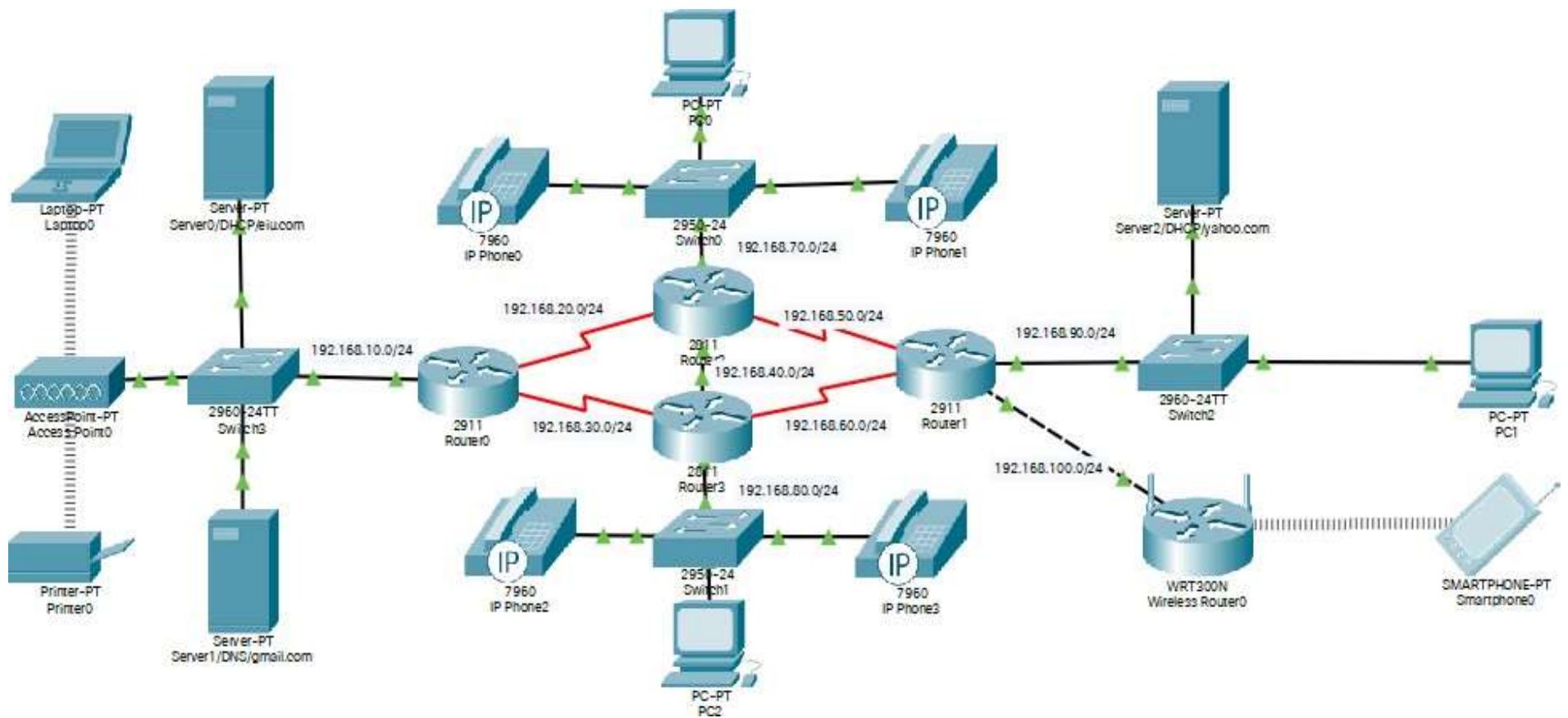
*\* Students are allowed to write their answers in a word file (Answer sheet) provided by instructor. After finishing the assignment, students must convert the word file (Answer sheet) into a PDF file. The PDF file should have name in the following format “Ngày thi\_Mã MH\_Mã số SV\_Họ và tên SV.pdf”. Finally, students upload the file in Moodle.*

*\* PDF file should have screenshot of network design, screenshot or written code of each network and device configuration (like router, switch, etc.) and screenshot of the output of every instruction*

Design, configure, verify, troubleshoot, and execute the following IPv4 network diagram using CISCO Packet Tracer. Take the screen shot of the output based on given instructions and attach it within the answer sheet.

**Marks Distribution:**

- i) Network Design & Routing protocol configuration 20 Points**
- ii) DHCP, HTTP and DNS Configuration 20 Points**
- iii) Wireless Configuration 20 Points**
- iv) Email Configuration 20 Points**
- v) VOIP Configuration 20 Points**



## Addressing Table

Device	Interface	IP Address	Model / Services Hosting
Router 0	GigabitEthernet0/0	192.168.10.1/24	Model: 2911, Configure OSPF routing protocol for all the interfaces. All the interfaces belong to OSPF area 0
	Serial0/0/0	192.168.30.1/24	
	Serial0/0/1	192.168.20.1/24	
Router 1	GigabitEthernet0/1	192.168.90.1/24	Model: 2911, Configure OSPF routing protocol for all the interfaces. All the interfaces belong to OSPF area 0
	GigabitEthernet0/2	192.168.100.1/24	
	Serial0/0/0	192.168.60.2/24	
	Serial0/0/1	192.168.50.2/24	
Router 2	FastEthernet0/0	192.168.70.1/24	Model: 2811, Configure OSPF routing protocol for all the interfaces. All the interfaces belong to OSPF area 0
	FastEthernet0/1	192.168.40.1/24	
	Serial0/2/0	192.168.20.2/24	
	Serial0/2/1	192.168.50.1/24	
Router 3	FastEthernet0/1	192.168.40.2/24	Model: 2811, Configure OSPF routing protocol for all the interfaces. All the interfaces belong to OSPF area 0
	Serial0/2/0	192.168.60.1/24	
	Serial0/2/1	192.168.30.2/24	
	FastEthernet0/0	192.168.80.1/24	
Switch0			Model: 2950-24
Switch1			Model: 2950-24
Switch2			Model: 2960-24TT
Switch3			Model: 2960-24TT
PC0		192.168.70.3/24	Email id: <a href="mailto:pc0@gmail.com">pc0@gmail.com</a> , Password: 123
PC1		DHCP, first 10 IP addresses are static IP address in the network	
PC2		192.168.80.3/24	Not Applicable
Laptop0		DHCP, first 10 IP addresses are static IP address in the network	
Smartphone0		192.168.100.3/24	Email id: <a href="mailto:sm0@yahoo.com">sm0@yahoo.com</a> , Password: 321
Printer		DHCP, first 10 IP addresses are static IP address in the network	
Server0		192.168.10.3/24	DHCP & Hosting eiu.com (HTTP)
Server1		192.168.10.2/24	DNS & Hosting gmail.com (Email)
Server2		192.168.90.2/24	DHCP & Hosting yahoo.com (Email)
Access Point0	SSID: EIU, WEP Key: 0123456789		
Wireless Router0	GigabitEthernet0/2	192.168.100.2/24	SSID: CIT, WEP Key: 9876543210
IP Phone0			Phone Number: 7001

IP Phone1			Phone Number: 7002
IP Phone2			Phone Number: 8001
IP Phone3			Phone Number: 8002

**Instruction:**

- a) Show OSPF routing protocols information on each router.
- b) Send email from PC0 to SmartPhone0 and vice versa.
- c) Send a packet from PC1 to Printer and vice versa.
- d) Send a packet from Laptop0 to PC2 and vice versa.
- e) Browse [www.eiu.com](http://www.eiu.com) from SmartPhone0, Laptop0, PC0.
- f) Make a call from IP Phone0 to IP Phone3 and vice versa.