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**BSc Cloud Computing
IP Internetworking (ACCC4007_LON)
June 2021
Practical Exam (RESIT)**

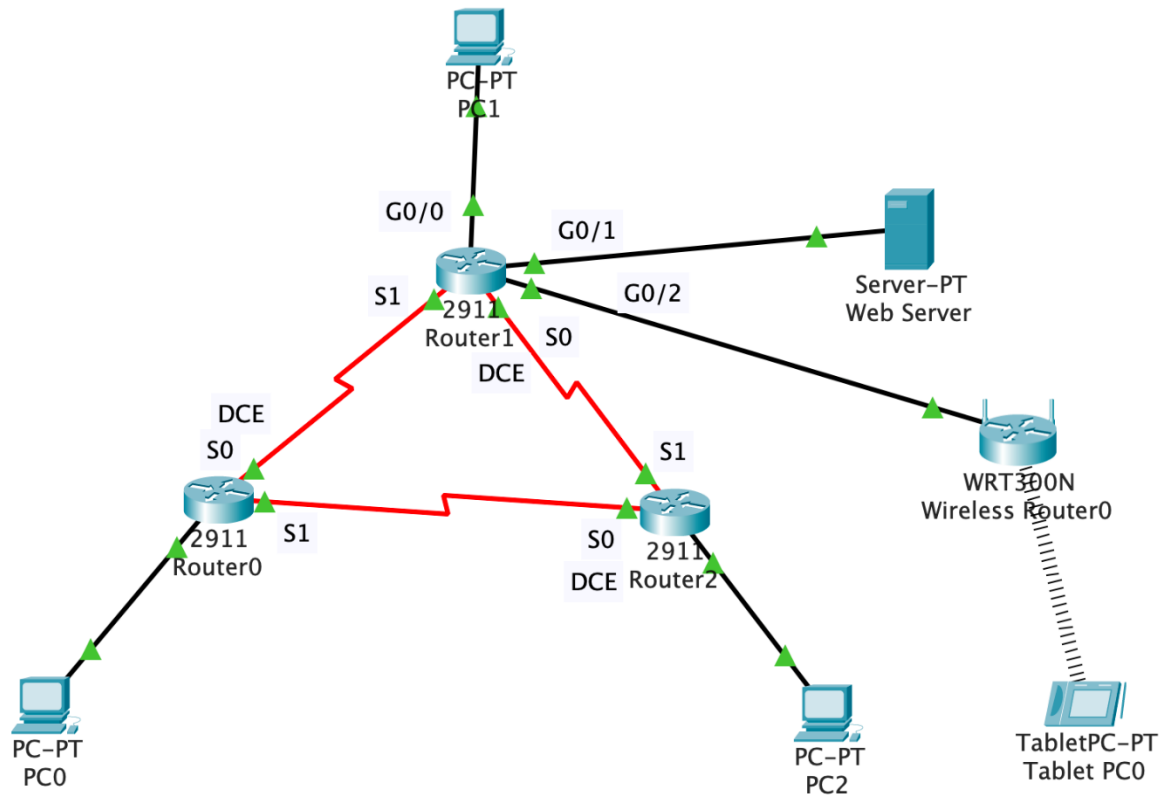
Student Name : _____
Student ID : _____
Date : _____

This is an individual Online practical lab-test, held under examination conditions. You will need to configure a Packet Tracer network.

Your network should be configure using these devices based on the following specifications.

This paper is marked out of 100.

You will have 2 hours to complete this task and then upload it to Moodle.



Please note the serial port may be different numbers on your implementation.

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Device	Interface	IP Address	Subnet Mask	Default Gateway
R0	G0/0	195.29.1.1	255.255.255.0	N/A
	S0/0/0 (DCE)	195.29.12.1	255.255.255.252	N/A
	S0/0/1*	195.29.13.1	255.255.255.252	N/A
R1	G0/0	195.29.2.1	255.255.255.0	N/A
	G0/1	200.200.200.1	255.255.255.0	N/A
	G0/2	100.100.100.1	255.0.0.0	N/A
	S0/0/0*	195.29.12.2	255.255.255.252	N/A
	S0/0/1*(DCE)	195.29.23.1	255.255.255.252	N/A
R2	G0/0	195.29.3.1	255.255.255.0	N/A
	S0/0/0* (DCE)	195.29.13.2	255.255.255.252	N/A
	S0/0/1*	195.29.23.2	255.255.255.252	N/A
Web Server	FA0	200.200.200.207	255.255.255.0	200.200.200.1
Wireless Router	Internet	100.100.100.100	255.0.0.0	100.100.100.1
PC0	NIC	195.29.1.7	255.255.255.0	195.29.1.1
PC1	NIC	195.29.2.8	255.255.255.0	195.29.2.1
PC2	NIC	195.29.3.9	255.255.255.0	195.29.3.1

*The numbers of your serial interfaces may be different as these depend on the slot used in the devices when fitting the card. E.g. S0/3/0 or S0/2/0

1. Configure the network with Packet Tracer using 3 Cisco 2911 routers with additional HWIC-2T serial ports inserted, a Server-PT (Web Server), a WRT300N wireless router, a TabletPC-PT tablet and 3 PCs. **(5 marks)**
2. Configure the R0, R1, and R2 hostnames. **(5 marks)**
3. Set the devices with the IP addresses as specified in the table **(10 marks)**

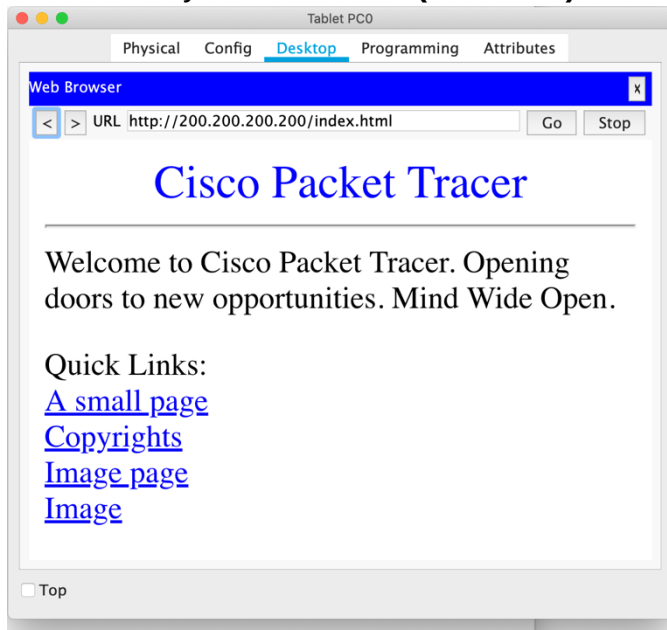
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4. Configure OSPF routing on R0, R1 and R2 in the network and verify that routing tables are updated correctly. **(5 marks each)**
5. Configure R0 with router ID 1.1.1.1, R1 with 2.2.2.2 and R2 with ID 3.3.3.3. **(5 marks)**
6. Configure OSPF passive interfaces on the GigabitEthernet interface **(5 marks)**
7. Configure the OSPF reference bandwidth to 1000 on routers R1, R2 and R3. **(5 marks)**
8. On Serial links between R0 and R1, set the bandwidth to 128Kb/s. **(5 marks)**
9. Set the priority of R0 to 200. **(5 marks)**
10. Verify OSPF configurations and that all networks are present in the routing table and all PCs can ping each other and the Web Server. **Ensure that the router R0 is elected as DR.** You don't need to record that this works as it can be identified

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from the Packet Tracer file. If this doesn't work spend some time troubleshooting your network. **(10 marks)**

11. Configure the Web Server with a static IP address. Configure the Wireless Router with a static IP address **(5 marks)**
12. Configure the Wi-Fi SSID to be **"B.Sc Cloud Computing"** and apply the authentication/Password for WPA-PSK with TKIP for the Wifi. **(10 marks)**
13. Configure the Tablet PC0 to connect to the Wi-Fi. **(5 marks)**
14. From the tablet use the web browser to access the Web Server. When you connect you should see: **(10 marks)**



Save the Packet Tracer file as:
Your-name_ID-number.pka

Submission Requirement

The Packet Tracer file should be submitted as a single file via Moodle.

******* End of Exam Paper *******