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**BSc Cloud Computing
Network Principles (ACCC4005_LON)
2020
Resit Practical Exam**

Student Name : _____
Student ID : _____
Date : _____

This is an individual practical lab-test, held under examination conditions. You will need 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 fixed time period to complete this task and then upload it to Moodle.

TOPOLOGY DIAGRAM



IP addressing scheme

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0/0	199.47.10.1	255.255.255.0	N/A
	G0/0/1	199.47.11.1	255.255.255.0	N/A
S1	VLAN 1	199.47.11.10	255.255.255.0	199.47.11.1
PC-A	NIC	199.47.11.254	255.255.255.0	199.47.11.1
PC-B	NIC	199.47.10.254	255.255.255.0	199.47.10.1

Configure the network with Packet Tracer using a 2960 switch, a Cisco 2911 router and 2 PCs. Following the diagram above.

Using Packet tracer complete the following tasks:

Task 1: Network Connection (5 Marks)

Connect the network as shown in the topology diagram with the correct cables.

Task 2: Configure the Router (50 Marks)

- 1) Assign a device name R1 to the router. **(2 marks)**
- 2) Disable DNS lookup to prevent the router from attempting to translate incorrectly entered commands as though they were host names. **(8 marks)**
- 3) Assign **class** as the privileged EXEC encrypted password. **(2 marks)**
- 4) Assign **cisco** as the console password and enable login. **(2 marks)**
- 5) Assign **cisco** as the VTY password and enable login. **(2 marks)**
- 6) Encrypt the clear text passwords. **(8 marks)**
- 7) Create a banner that warns anyone accessing the device that unauthorized access is prohibited. **(2 marks)**
- 8) Configure G0/0 on the router. **(5 marks)**
- 9) Activate G0/0 on the router **(2 marks)**
- 10) Configure and activate G0/1 on the router. **(5 marks)**
- 11) Activate G0/1 on the router. **(2 marks)**
- 12) Configure an interface description for each interface indicating which device is connected to it. **(10 marks)**

Task 3: Configure the Switch (30 Marks)

- 13) Enter global configuration mode and assign the switch hostname to S1. **(2 marks)**
- 14) Prevent unwanted Domain Name System (DNS) lookups. **(2 marks)**
- 15) Configure a login message-of-the-day (MOTD) banner. **(2 marks)**
- 16) Enter global configuration mode to set the SVI (VLAN 1) IP address to allow remote switch management. **(8 marks)**
- 17) Configure IP default gateway. **(10 marks)**
- 18) Configure the virtual terminal (VTY) line for the switch to allow Telnet access. If you do not configure a VTY password, you will not be able to Telnet to the switch. **(6 marks)**

Task 4: Configure host PCs (15 marks)

- 19) Configure the 2 PCs with the IP addresses shown in the diagram above and the default gateway address set to the appropriate router Ethernet port interface. **(5 marks)**
- 20) Ensure you are able to ping PC-A ping from PC-B using the Command Prompt from the Desktop (Packet Tracer). **(10 marks)**

Save the Packet Tracer file as:

Your-name_ID-number.pka

Submission Requirement

The Packet Tracer file should be submitted via Moodle.