HIGHER DIPLOMA IN SCIENCE – COMPUTING (SOFTWARE DEVELOPMENT)

NETWORK TECHNOLOGIES

ASSIGNMENT: NETWORKING WITH CISCO PACKET TRACER (25 %)

(SESSION: SEPTEMBER 2021 – JANUARY 2022)

- **This is an individual assignment and assessment. Additionally, it forms part of the overall examination for this module. Accordingly you are bound by the GMIT Student Code of Conduct [REF: https://tinyurl.com/ybra6z8b]**

  In brief, as this is an individual examination, not a group one, ***you must do and submit your own work****.*

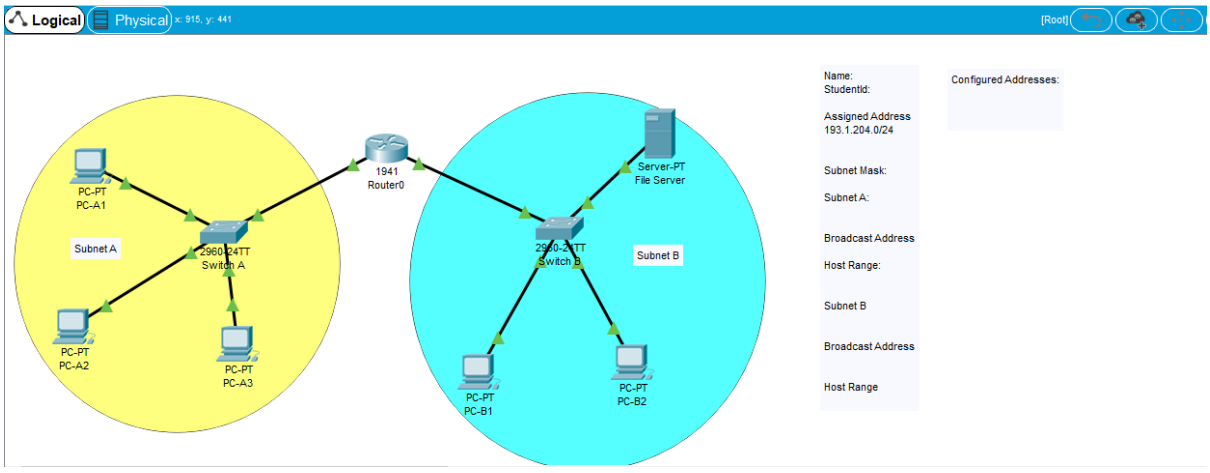
BY OPENING AND ATTEMPTING THIS ASSESSMENT YOU ARE BOUND BY THE RULES AND REGULATIONS OUTLINED AND REFERENCED ABOVE.

Assignment: Networking with Cisco Packet Tracer

You are the network administrator for a new office, and you've been tasked with setting up a small network. You've been assigned the network address 193.1.204.0/24, and have decided to split the network up into a number of subnets.

Tasks

1. Design an addressing scheme which will divide your network space into subnets, allowing for up to 30 hosts per subnet.
2. Using Cisco Packet Tracer, build and configure the network as shown below, based on the IP addressing scheme you designed.
    - Your network should work! **All devices should be able to reach each other** (e.g. via ping). This is a key component of the assignment, and will be tested as part of the grading process.
    - The coloured ovals are simply a graphical indication of the subnet boundaries, there's no need to include them in your network.
3. Place a note on the Packet Tracer palette containing the following information:
    - Your name and student Id
    - Details of your addressing scheme, to include:
        - Assigned network address (given above)
        - Subnet mask
        - Network addresses for subnets A and B
        - Broadcast addresses for subnets A and B
        - Host ranges for subnets A and B
    - A list of configured addresses for all devices on the network
        - Include PCs, the File Server, and the router interfaces.



Submission:

- Submit a Packet Tracer file (.pkt) of your network, which should include the notes as described in 3 above. Your file should be named *LastName_FirstName_StudentId.pkt,* e.g. *French_John_G123456.pkt.*
- Submissions are due by 11 pm on Sunday 28th November 2020.