Student ID:

Lab 01 Task

In Islamic University of Technology (IUT), each computer lab has its own network. There are five labs, each with two PCs. The lab's network has a pattern of having 192.id for the first 2 portions of the network address. id is the last two digits of your student id

Your task is to design an interconnection such that any PC in Lab x can reach any PC in Lab y.

As IUT is in Board Bazar, there is a problem of frequent load shedding. For that, sometimes some of the network connecting devices might not work right. Keep this in mind when designing the network to solve this issue.

Lab 01 Grading Criteria

1. **Building the topology: 15 marks**

   - Lab's topology - 2 * 5 = 10 marks

   - Connection between the labs = 5 marks

2. **Configuring the PCs: 5 marks**

   - 10 PCs × .5 mark each

3. **Configuring the Routers: 10 marks**

4. **Verifying connectivity (ping): 10 marks**

   - Each lab's PCs local connectivity test - .5 marks each PC - 5 marks

   - Global connectivity test - .5 marks each PC - 5 marks

5. **Solving the load shedding problem: 10 marks**

6. **Total: 50 marks**