**PSG COLLEGE OF TECHNOLOGY, COIMBATORE - 641 004**

**Department of Applied Mathematics and Computational Sciences**

**MSc Data Science – Sem V – Computer Networks Lab**

**Lab Test -1 [ 25/Feb/2021 ]**

**Time : 1 Hour Maximum Marks: 25**

**Q2 Even Roll Numbers**

**Implement a connection-oriented client-server socket program using C/C++/Python. Server is concurrent in handling multiple client requests (must support atleast 3 clients simultaneously). This server is a simple DNS server.**

**Implement server to respond to the following client messages**

1. Client sends a particular domain name:

**“DOMAIN\_NAME www.google.com”**

* + Server responds with IP address of that domain.
  + If server is unable to provide correct information, responds with appropriate information message back to client.

1. Clients sends its MAC to server: **“MAC xyz”**
   * Server stores the MAC of client along with client’s IP in its ***MAC-IP table.***
2. Clients requests server for server’s MAC-IP table built locally.
   * Server responds back with the table.

**You can make any meaningful assumptions that are necessary and appropriate for client server communication.**