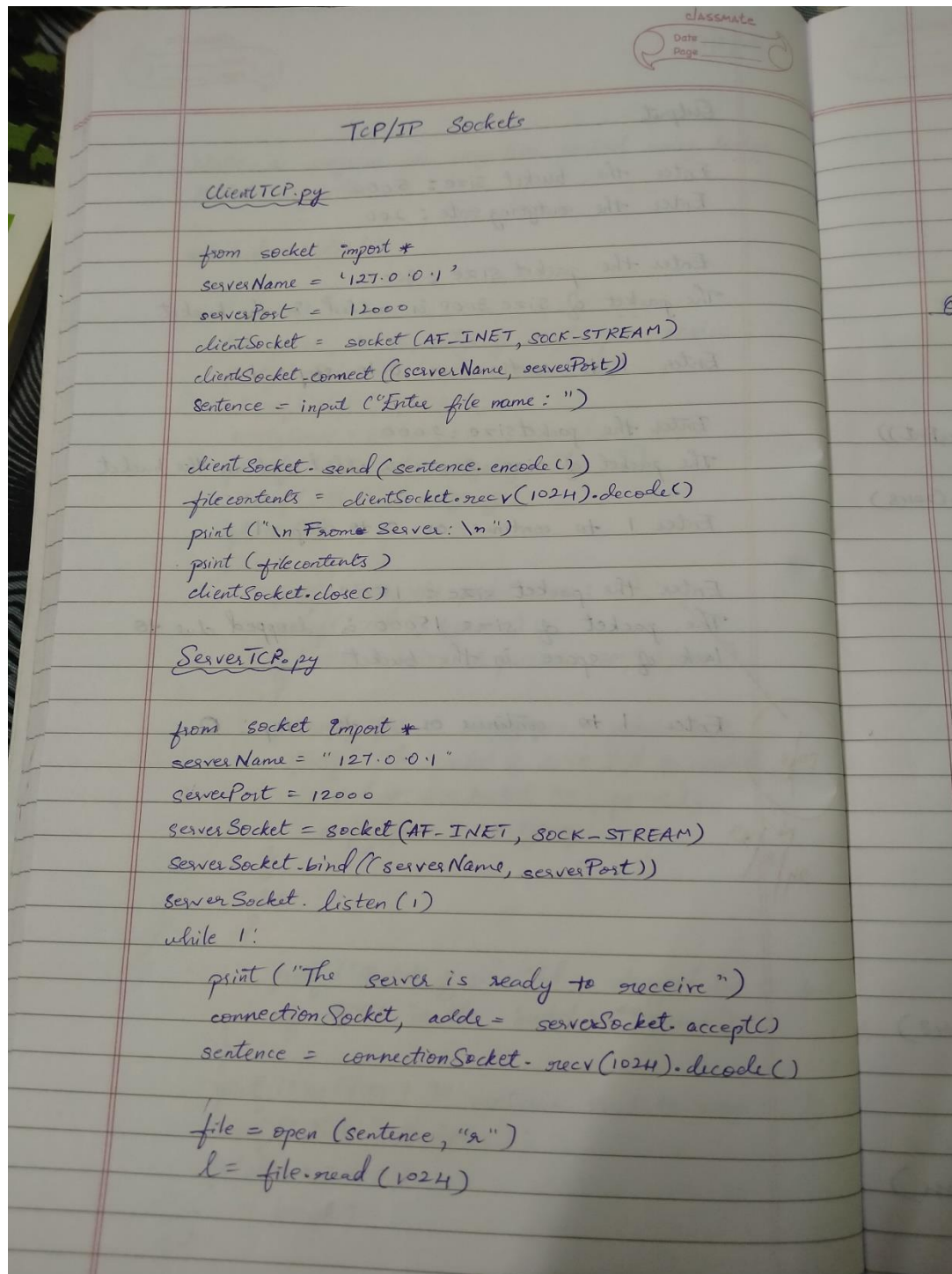**Experiment 15:**

Using TCP/IP sockets, write a client-server program to make client sending the file name and the server to send back the contents of the requested file if present.

TCP/IP Sockets

ClientTCP.py

```
from socket import *
serverName = '127.0.0.1'
serverPort = 12000
clientSocket = socket (AF_INET, SOCK-STREAM)
clientSocket.connect ((serverName, serverPort))
sentence = input ("Enter file name : ")

client Socket. send (sentence. encode ())
file contents = clientSocket.recv (1024).decode ()
print ("\n From Server: \n ")
print (filecontents )
clientSocket.close ()
```

ServerTCP.py

```
from socket import *
server Name = " 127.0.0.1 "
serverPort = 12000
server Socket = socket (AF_INET, SOCK-STREAM)
server Socket.bind ((serverName, serverPort))
server Socket. listen (1)
while 1:
    print ("The server is ready to receive ")
    connection Socket, addr = serverSocket. accept ()
    sentence = connection Socket. recv (1024).decode ()

    file = open (sentence, "r")
    l = file.read (1024)
```

```
connectionSocket.send (l. encode ())
    print ("\n Sent contents of" + sentence)
    file.close ()
    connectionSocket.close().
```

Output :

Server Side :

   The server is ready to receive

Client Side :

   Enter file name : serverTCP.py
   From Server :
   from socket import *

      .
      .

   (code under serverTCP.py is printed as written above)

Server Side :

The server is ready to receive

Sent contents of serverTCP.py
The server is ready to receive.

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Screenshots:

```python
from socket import *
serverName = '127.0.0.1'
serverPort = 12000
clientSocket = socket(AF_INET,SOCK_STREAM)
clientSocket.connect((serverName,serverPort))

filename = input("Enter the filename: ")
clientSocket.send(filename.encode())
fileContents = clientSocket.recv(1024).decode()
print("\n File contents :\n")
print(fileContents)

clientSocket.close()
```

```python
from socket import *
serverName = '127.0.0.1'
serverPort = 12000
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
    print("Server is listening")
    connectionSocket, addr = serverSocket.accept()
    filename = connectionSocket.recv(1024).decode()

    file = open(filename,"r")
    fileContents = file.read(1024)

    connectionSocket.send(fileContents.encode())
    print("\nSent file contents of " + filename)
    file.close()
    connectionSocket.close()

```

Output:

```
PS D:\BMSCE\Academics\Semester IV\Computer networks\Lab\TCP> python server.py
Server is listening

Sent file contents of server.py
Server is listening
```

```
PS D:\BMSCE\Academics\Semester IV\Computer networks\Lab\TCP> python client.py
Enter the filename: server.py

 File contents :

from socket import *
serverName = '127.0.0.1'
serverPort = 12000
serverSocket = socket(AF_INET,SOCK_STREAM)
serverSocket.bind((serverName,serverPort))
serverSocket.listen(1)
while 1:
  print("Server is listening")
  connectionSocket, addr = serverSocket.accept()
  filename = connectionSocket.recv(1024).decode()

  file = open(filename,"r")
  fileContents = file.read(1024)

  connectionSocket.send(fileContents.encode())
  print("\nSent file contents of " + filename)
  file.close()
  connectionSocket.close()


PS D:\BMSCE\Academics\Semester IV\Computer networks\Lab\TCP>
```