1. Python – Sockets

```python
#!/usr/bin/env python3

import socket

HOST = '127.0.0.1'  # Standard loopback interface address (localhost)

PORT = 65432        # Port to listen on (non-privileged ports are > 1023)

with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:

    s.bind((HOST, PORT))

    s.listen()

    conn, addr = s.accept()

    with conn:

        print('Connected by', addr)

        while True:

            data = conn.recv(1024)

            if not data:

                break

            conn.sendall(data)
```

```python
#!/usr/bin/env python3

import socket

HOST = '127.0.0.1'  # The server's hostname or IP address

PORT = 65432        # The port used by the server

with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:

    s.connect((HOST, PORT))

    s.sendall(b'Hello, world')

    data = s.recv(1024)

print('Received', repr(data))
```

Questions

1. In relation to echo-server.py, what is achieved using the command: s.bind((HOST, PORT))?

s.bind ((HOST, PORT)) - The IPV4 address 127.0.0.1 and Port number 65432 are used to form a socket associated or bound to the server's network interface. The socket is utilised for listening to incoming connection requests.

2. In relation to echo-client.py, what is achieved using the command: s.connect((HOST, PORT))?

s.connect((HOST,PORT)) – initiate a TCP connection to the host (127.0.0.1):port(65432)—tcp://host:port .