MODULE 4 ASSESSMENTS

1. **Explain the connection procedure followed in client server communication.**

ANSWER :

1. **Server Initialization** : The server initializes and binds to a specific port on its host machine. This allows clients to connect to the server using the server's IP address and port number.
2. **Client Request** : The client initiates the connection by sending a request to the server. This request typically includes the server's IP address and port number, along with any other relevant information needed for the connection.
3. **Server Accepts Connection**: Upon receiving the client's request, the server accepts the connection. This involves creating a new socket to handle communication with the client.
4. **Handshake**: Once the connection is established, a handshake process may occur. During the handshake, the client and server exchange information to ensure that both parties are ready to communicate. This may involve negotiating communication parameters such as protocols, encryption methods, and other settings.
5. **Data Transfer**: With the connection established and the handshake completed, the client and server can begin transferring data. Data can be sent in both directions, depending on the nature of the communication protocol and the specific application requirements.
6. **Connection Termination**: When the communication session is complete or terminated by either the client or server, the connection is closed. This involves releasing any allocated resources and freeing up the port for future connections.

2. **What is the use of bind() function in socket programming ?**

ANSWER :

In socket programming, the bind() function is used to associate a socket with a specific network IP address and port number on the local machine. This function is typically used by servers to specify the address and port on which they will listen for incoming connections.

3. **What is Datagram Socket ?**

ANSWER :

A datagram socket is a type of socket used in network programming for communication using the User Datagram Protocol. Datagram sockets provide connectionless communication where individual messages, called datagrams, are sent between hosts without establishing a connection.