

- 2. Data link layer
- 3. Network layer
- 4. Transport layer
- 5. Session layer
- 6. Presentation layer
- 7. Application layer

1. Physical Layer

- Physical Layer is the lowest layer of the OSI / ISO reference model
- Physical layer provides the service to datalink layer
- The physical layer is concerned with transmitting raw bits over a communication channel
- Voltages and data rates needed for transmission is defined in the physical layer
- It converts the digital/analog bits into electrical signals or optical signals
- Design issues concerned with physical layer are: mechanical, electrical, and timing interfaces, and the physical transmission medium, which lies below the physical layer

2. Datalink layer

- Datalink layer provides the service to network layer
- The task of the data link layer is to transform a raw bits of data to the network layer
- Datalink layer splits the input data into data frames and transmits the frames sequentially
- Transmitting and receiving data frames sequentially is managed by datalink layer
- Datalink layer deals with error control, flow control, error detection and error correction
- It keeps track of the speed of the data transmission in the network

3. Network layer

- Network layer provides the service to transport layer
- The network layer controls the operation of the subnet (Internet)
- It acts as a network controller
- A key design issue in network layer is determining how data packets are routed from source to destination
- It decides by which route the data packets should transmit
- It deals with congestion control & quality of service

4. Transport layer

- Transport layer provides the service to session layer
- The transport layer is a true end-to-end layer, all the way from the source to the destination
- The basic function of the transport layer is to accept data from the session layer and split that data into smaller units and pass these to the network layer
- The transport layer also determines what type of service should be provided to the session layer and to the users of the network
- Other services of the transport layer are: broadcasting of messages to multiple destinations
- Functions such as Multiplexing, Segmenting or Splitting of the data are done by transport layer

5. Session layer

- Session layer provides the service to presentation layer