## Similarities between OSI and TCP/IP Reference Models

1. Both OSI and TCP/IP network models are based on the idea of a stack of independent protocols.
2. The protocols of each layer are completely hidden from the other layers, in both the models.
3. The layers upto the transport-layer in both the models provides an end-to-end transport service (which is network independent) to the communicating processes.

## Differences between OSI and TCP/IP Reference Models

1. The OSI model clearly differentiates between services, interfaces and protocols whereas the TCP/IP model does not differentiate clearly.
2. The OSI model was designed prior to the protocols emergence. In case of TCP/IP, the model was designed after the protocols emergence.
3. It is easy to add new technologies in the OSI reference model but difficult to add in TCP/IP reference model.
4. There are seven layers in the OSI model whereas the TCP/IP model has only four layers. The figure shows the layers in both the models.

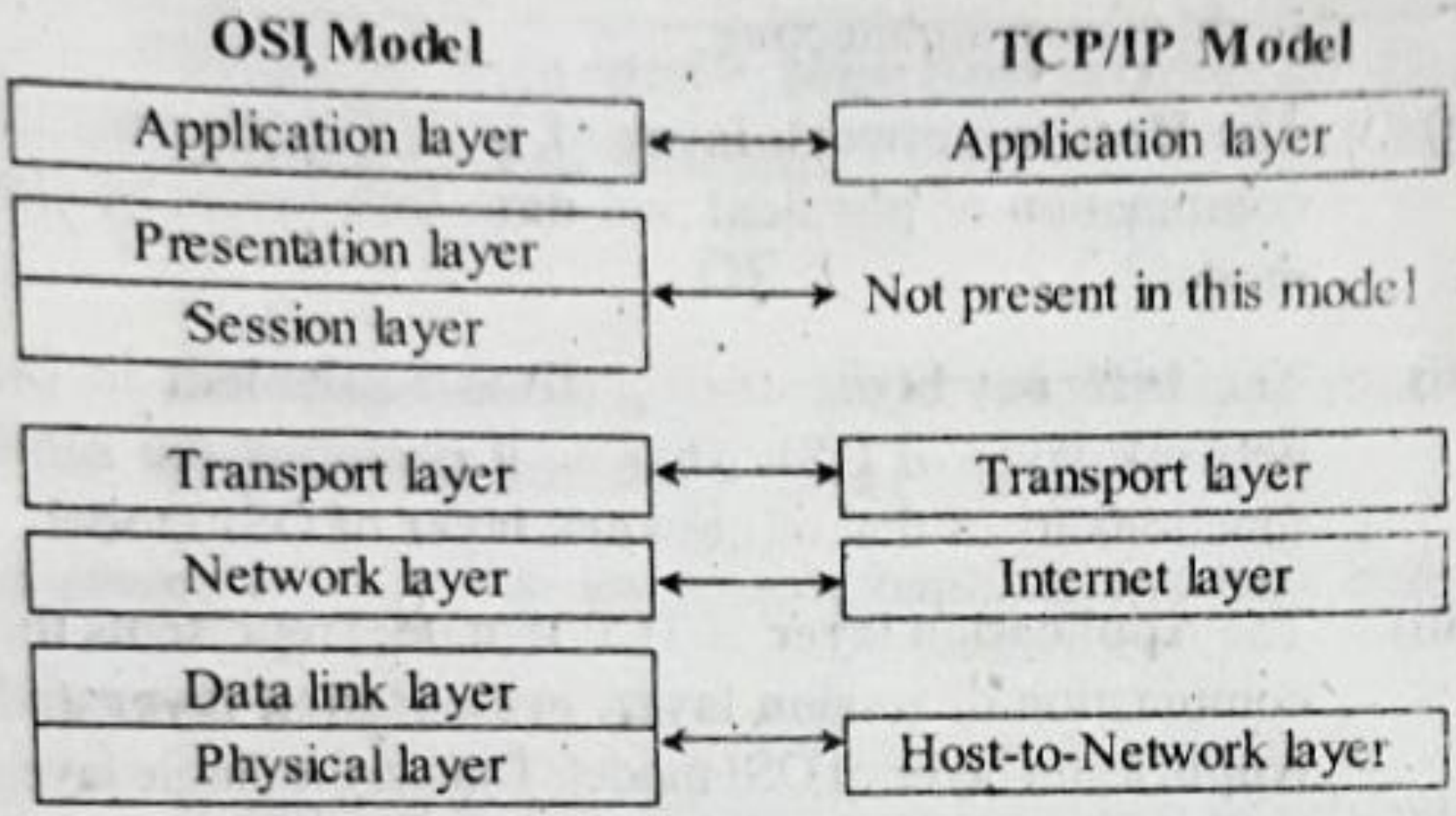


**Figure: OSI and TCP/IP Reference Models**

5. The OSI model supports both modes of communication such as connection-oriented and connectionless in the network layer but only one mode i.e., connection-oriented communication in the transport layer. On the other hand, the TCP/IP model supports only one mode i.e., connectionless communication in the network layer but both modes in the transport layer.