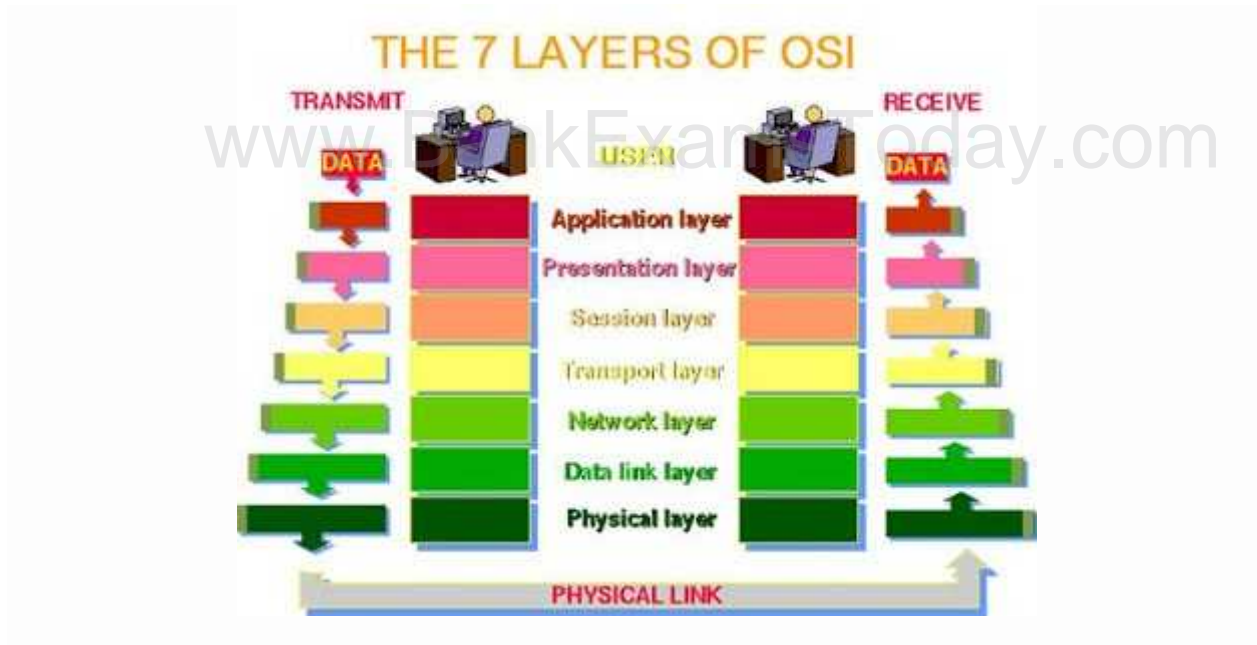
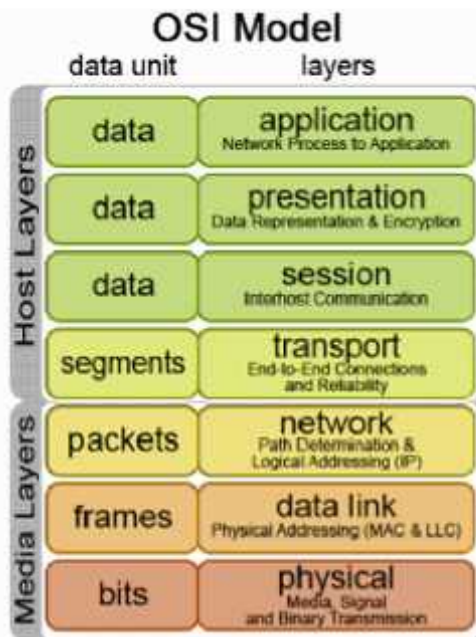


## OSI

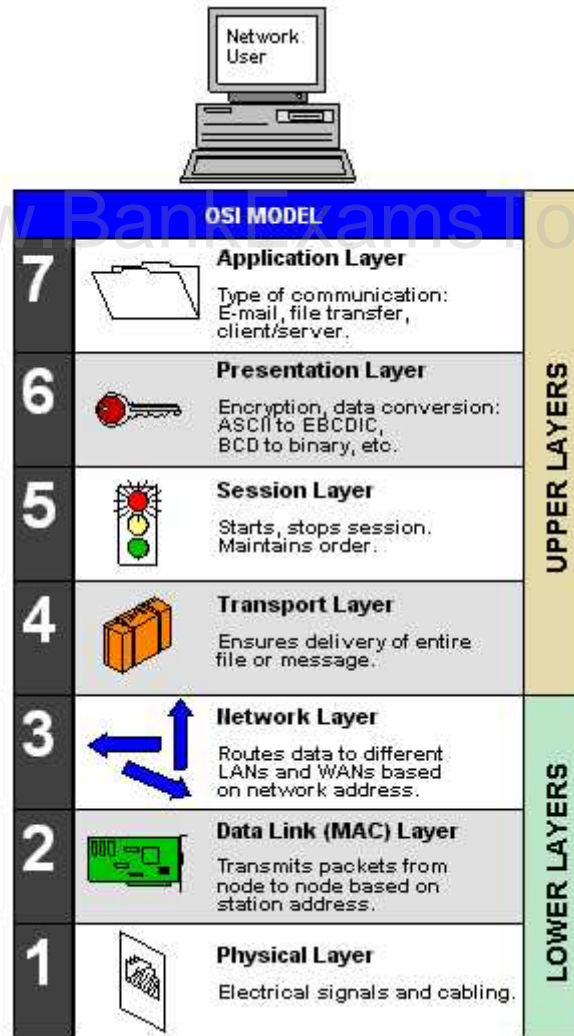


- OSI stands for Open System Interconnection Model(OSI Model).
- It use to transfer data over a network which moves through different layer.
- It has 7 layer which divided into two level : upper or host & lower or media level
- data moves through different stages like (in ascending order) bits,frames,packets,segments.



### Working of OSI

# OSI Model Layers in Computer Networks PDF



## 1. Physical layer :

- Prepare the physical devices enabling devices for transmission of data and data is received.
- It is responsible for establish and termination of connection between two nodes over a network.
- It defines the medium of transmission of data like: simple(one way transmission, eg t.v), half duplex(two way transmission but partially, eg: walki talki), full duplex(Two way transmission of data, eg: mobile or phone)

## 2. Data link Layer :

- It provides permission to devices for gain access to data.It controlling devices over a network.
- Data is sent to Network layer in the form of packets and it is responsible to controls error checking and packet synchronization.

## 3. Network layer :

- In a network each node(computer) has a unique address here network layer is responsible for letting the data to its destination address or node.

# OSI Model Layers in Computer Networks PDF

- It splits the data or message into several fragments, delivering each fragment by a separate route and reassembling the fragments, report delivery errors, etc.(like phone calls which you made, first it sounds like beep that is a second which it take to you to connect with available line.)

#### 4. Transport layer :

- It manages connection and handle errors while delivering of data or message over a network.

Feature name	TP0	TP1	TP2	TP3
Connection-oriented network	Yes	Yes	Yes	Yes
Connectionless network	No	No	No	Yes
Concatenation and separation	No	Yes	Yes	Yes
Segmentation and reassembly	Yes	Yes	Yes	Yes
Error recovery	No	Yes	Yes	Yes
Reinitiate connection (a)	No	Yes	No	No
Multiplexing / demultiplexing over single virtual circuit	No	No	Yes	Yes
Explicit flow control	No	No	Yes	Yes
Retransmission on timeout	No	No	No	Yes
Reliable transport service	No	Yes	No	Yes

(a) If an excessive number of PDUs are unacknowledged.

#### 5. Session layer :

- It starts , manages and stop the connection between nodes.
- It provides checkpointing, adjournment, termination, and restart procedures.

#### 6. Presentation layer :

- It encrypt the message or data and provide to application layer.

#### 7. Application layer :

- It interact with software.
- Some example of Application layer : Web Browser , Mails