

13 May 24

② SHRG:BE

Comlin Page

Date

① SWITCH :

- Ans: ① A switch can receive i/p from any one port and transmit it on all ports.
- ② Ethernet LAN is used to connect to a switch that connects system. It works on Data link layer of OSI model.
- ③ It is a small device that transfers data packets betⁿ multiple network devices such as computers, routers, servers or other switch.

② HUB :- 1) It is a networking device which simply receive data from one port & transmits on all the other ports.

1) HUB's are commonly used to connect segments of LAN.

2) HUB works on physical layer of OSI model.

3) It comes with different port segment like 6, 12, 8, 24.

③ **ROUTER :-** 1) Routers are used to establish internetwork communication. It gives us wired and wireless both connectivities.

2) Router is a networking device which is used to provide interaction between two different networks.

3) Router is also used to provide the routes to the data and devices that are connected in network.

④ **GATEWAY :-** Gateway connects two networks together with the help of gateway devices like firewall and router. It also acts as a "gate" between two networks.

2) Gateway device is a node betⁿ the public network and private network which makes some security with the help of identification.

⑤ **BRIDGE** :- 1) A bridge is a type of computer network device that provides interconnections with other bridge networks that uses the same protocol.

2) Bridge devices inspect incoming network traffic and determine whether to forward or discard it, according to its intended destination it operates on data link layer.

⑥ **FIREWALL** :- 1) A firewall establishes a barrier between secured networks and outside untrusted network, such as internet.

2) A firewall is a network security device, either hardware or software based, which monitors all incoming & outgoing traffic and based on a defined set of security rules it accepts, rejects or drop the specific traffic.

Accepts :- allow the traffic.

Rejects :- blocks the traffic but replies with "unreachable error".

Drop :- blocks the traffic with no reply.

⑦ **MODEM** :- "Modulator - Demodulator" it's a hardware devices that connects a computer or router to a broadband network.

2) It converts an analog signal to digital data in binary format that computer can recognize.

⑧ **Repeaters** :- 1) Repeater used to regenerate a signal.

2) It removes the unwanted noise in an incoming signal, it works on layer 1 of OSI model.