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section:

CSE - 320
Assignment - I

Ans to the Q: No. 1

There are four basic topologies.

- (i) Bus topology -
- (ii) Ring topology
- (iii) Mesh topology
- (iv) Star topology.

Multipoint: Bus topologies are multipoint topologies.

In a bus topology, a single cable is used to connect all the devices. But they are not circular.

Point to point, Mesh, ^{Ring} Star topologies

are point to point topologies.

In a Mesh topology, all devices are connected with each other with individual cable, star on the other hand, star topology uses a hub to connect all the devices individually.

Ans to the Q: N: 2

Live streaming are more sensitive to delay -

If there is a delay, ~~in~~ transferring a file on an email may take a little more time than expected, But once it's sent, there will be no problem in opening that.

On the other hand, live streamings are interactive. If there is packet loss or delay, people cannot see the instant incident through the stream. Streams are supposed to show the

instant incidents. For example, in a live cricket match, one tv channel's stream has no delay and another has 30 seconds delay. So, people will obviously choose the channel with less delay ~~a other~~ Because it shows the latest incidents of the match.

Ans to the Q. N:3

For n devices in a network, total cable links required of mesh, ring, bus and star topology is written below.

Mesh Topology: $\frac{n(n-1)}{2}$ cables

Ring Topology: n cables

Bus Topology: $n+1$ cables

Star Topology: n cables

Ans to the Q.N: 4

Data is represented in various ways.

Such as, ~~Bin~~ Text, Audio, Video, Digits etc. But all of the datas are stores in the computer as a combination of binary ~~num~~ number 0s and 1s.

Text: Each letter has a fixed binary value. When a user types, the data is stores in the computer as ^{per} the ASCII value of the letter. When the receiver gets the text, that computer again converts it to text and thus we can communicate.

Audio: Audio files are those files when we can ~~hear what we want~~ send and listen sounds. This also converts into digital form in the computer. This format is called codec.

Ans to the Q. N. 5

End Devices: 1, 2, 3, 8, 7

Intermediary Devices: 5, 9

Media: 4, 10, 11, 12

Message: 6

Ans to the Q: N: 6

If PC is the source, Router R1 will be the first hop. ~~Again~~

Again, if Router R2 is the source, R1 will be the first hop.

Ans to the Q: N: 7

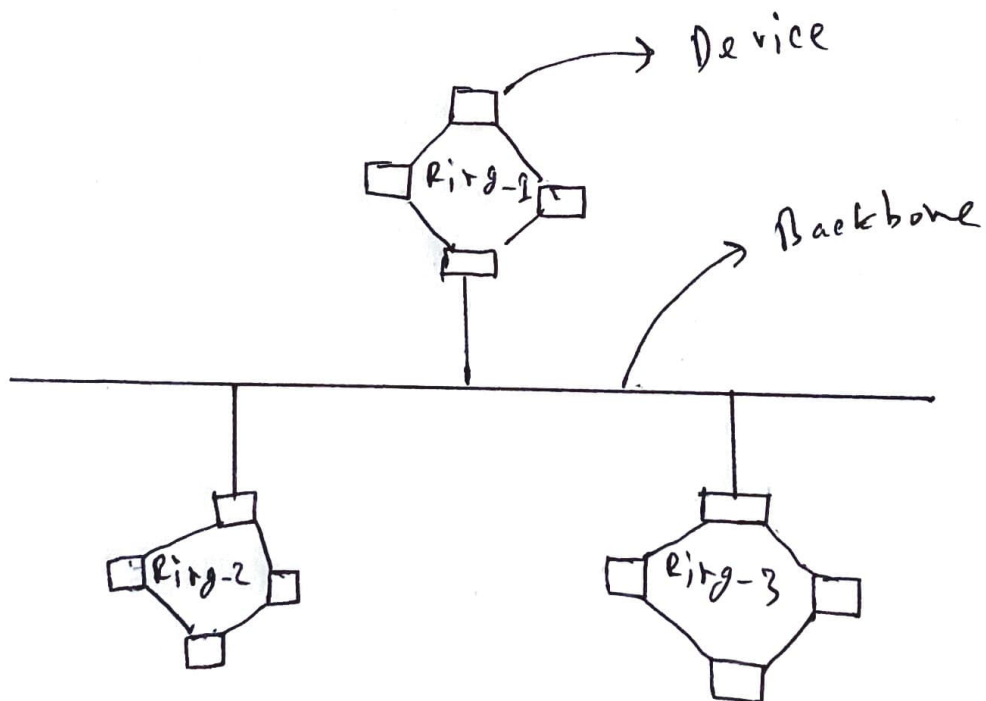
- (a) Route determination: Internet
- (b) connection to transmission media: Network Access
- (c) Providing services to end user: Application
- (d) creating user datagrams: Internet
- (e) Responsibility for handling frames between adjacent nodes: Network Access
- (f) Transforming bits to electromagnetic signals: Network Access

Ans to the Q: N: 8

Presentation layer encrypts the data of a packet.

Logical address / ip address remains the same from source to destination at each hop.

Ans to the Q: N: 9



Ans to the Q: N: 10

frame X

A	E	20	24	80	51033	Data	Trailer
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frame Y

G	H	24	92	49120	25	Data	Trailer
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