

Lesson 5 Networking and Digital Citizenship

1. Define the following : Client, Server, Switch and TCP/IP

Client – Computer that requests services.

Server – Provides services to clients.

Switch – Connects devices in a network.

TCP/IP – Protocols for communication over the internet.

2. Differentiate between the following :

LAN vs MAN –

LAN: small area network (e.g., building); MAN: covers a city.

Twisted Pair vs Coaxial – Twisted Pair: wires twisted, cheaper; Coaxial: single wire with shield, faster.

IMAP vs SMTP – IMAP: retrieves emails; SMTP: sends emails.

3. What is Communication?

Exchange of information between two or more devices.

4. How many types of networks are there? Name them.

Types of Networks – LAN, MAN, WAN, PAN

5. What is digital citizenship?

Responsible and safe use of technology and the internet.

6. What is a router?

Device that forwards data between networks.

7. What is the use of hub?

Connects multiple computers in a network; sends data to all.

8. Write about FTP.

File Transfer Protocol; used to upload/download files over internet.

9. Name the different types of topologies. Explain any one of them.

Topologies – Bus, Star, Ring, Mesh, Tree.

Star Topology – All devices connect to a central hub/switch.

10. Describe WAN.

WAN – Wide Area Network; connects computers across countries/continents.

11. Name the different types of wireless transmission media. Explain any one of them.

Wireless Media – Radio waves, Microwaves, Infrared, Satellite.

Example – Radio Waves: Used in Wi-Fi and Bluetooth.

12. What is ring topology? Explain briefly.

Ring Topology – Each device connects to two others, forming a closed loop. Data travels in one direction.