

CCA-102: Data Communications

Assignment – 2

Name : Murugan

Subject Code : CCA-102

Subject Name : Data Communications

1. What are the different types of networks?

- LAN
- MAN
- WAN
- PAN
- CAN
- SAN

2. Explain Shielded Twisted Pair (STP) and Unshielded Twisted Pair (UTP).

- STP: Has shielding to reduce electromagnetic interference.
- UTP: Lacks shielding; cheaper and used in LANs.

3. Difference between Baseband and Broadband Transmission:

- Baseband: Single signal, digital.
- Broadband: Multiple signals, analog.

4. Difference between hub, modem, router, and switch:

- Hub: Broadcasts data.
- Modem: Converts signals.
- Router: Connects networks.
- Switch: Sends data to specific devices.

5. Does the MAC address get transferred when moving NIC cards between PCs?

Yes, because MAC address is tied to the NIC hardware.

6. Common hardware-related network problems:

- Faulty cables
- Damaged ports
- Loose connections
- Malfunctioning NICs
- Overheating

7. Best place to install antivirus in a 2-server, 20-workstation network:

Install on all devices, especially servers and commonly used workstations.

8. Define Static IP and Dynamic IP. Difference between IPv4 and IPv6:

- Static IP: Manually assigned.
- Dynamic IP: Automatically assigned.
- IPv4: 32-bit
- IPv6: 128-bit

9. TCP/IP Model:

- Application Layer
- Transport Layer
- Internet Layer
- Network Interface Layer

10. What is a Web Browser? Give examples.

Software to access the web. Examples: Chrome, Firefox, Safari, Edge.

11. What is a Search Engine? Give example.

Searches web content. Examples: Google, Bing, Yahoo.

12. What is Internet & WWW? Uses in daily life:

- Internet: Global network
- WWW: Collection of websites

Uses: Communication, education, shopping, etc.

13. What is an ISP? Give examples in India.

Companies that provide Internet access. Examples: Jio, Airtel, BSNL, ACT.

14. Difference between MAC, IP, and Port Address:

- MAC: Device address
- IP: Network address
- Port: Identifies applications

15. How to view Internet browser's history:

- Chrome: Ctrl+H
- Firefox: Ctrl+H or via menu > History