- Basics of Networking

  - Introduction
  - Network Types

    Connection Type

    - Point-to-point
    - Point-to-multipoint

      Physical Topology
      → Star
      → Mesh
      → Bus
      → Ring

    Network reachability
    → PAN
    → LAN
    → WAN
    → MAN

  - Layered network models

    OSI Model
    → Application Layer
    → Presentation
    → Session
    → Transport
    → Network
    → Data Link
    → Physical

    Internet Protocol Suite (TCP/IP)
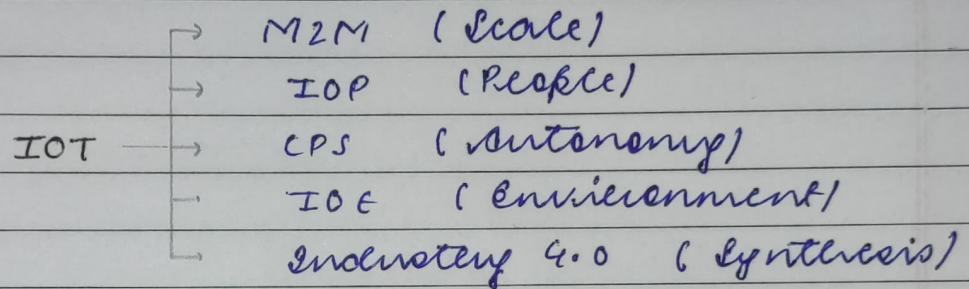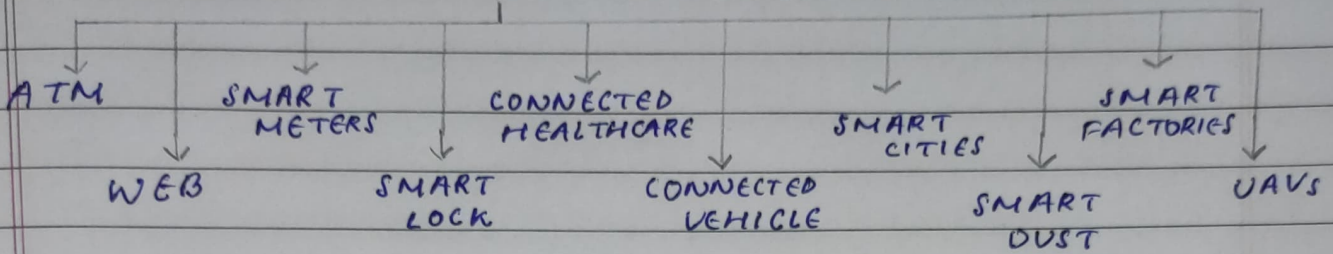    → Link layer
    → Internet layer
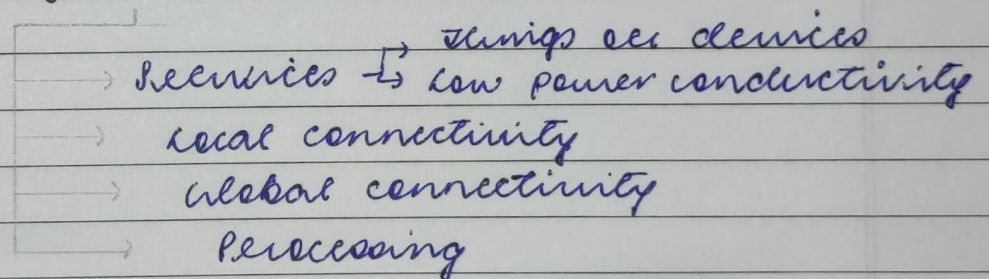    → Transport layer
    → Application layer

- Emergence of IOT

  - Introduction
    → what is IOT
    → characteristics of IOT

- Evolution of IOT

| ATM | SMART METERS | CONNECTED HEALTHCARE | SMART CITIES | SMART FACTORIES |
| WEB | SMART LOCK | CONNECTED VEHICLE | SMART DUST | UAVs |

IOT
- M2M (Scale)
- IOP (People)
- CPS (Autonomy)
- IOE (Environment)
- Industry 4.0 (Synthesis)

- Enabling IOT and Complex interdependence of Technologies
  - Resources → Things or devices, Low power conductivity
  - Local connectivity
  - Global connectivity
  - Processing

- IOT Networking Components
  - IOT Node
  - IOT router
  - IOT LAN
  - IOT WAN
  - IOT gateway
  - IOT proxy