

Diploma in Telecommunication (DTC)

Duration: 2 Years (4 Semesters)**

Semester – I

S. No.	Paper Numerical Unique	Class & Papers	Paper Name / Subject
1	DTC101	1DTC1	Fundamentals of Electrical & Electronic Engineering
2	DTC102	1DTC2	Basic Telecommunication Systems
3	DTC103	1DTC3	Analog & Digital Communication
4	DTC104	1DTC4	Electronic Devices & Circuits

Course Details (Semester – I)

- **Fundamentals of Electrical & Electronic Engineering** – Voltage, current, resistance, and Ohm’s Law basics.
 - **Basic Telecommunication Systems** – Introduction to telephony, modulation, and transmission methods.
 - **Analog & Digital Communication** – AM, FM, PCM, ASK, FSK, PSK systems.
 - **Electronic Devices & Circuits** – Diodes, transistors, amplifiers, and oscillators.
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Semester – II

S. No.	Paper Numerical Unique	Class & Papers	Paper Name / Subject
1	DTC201	2DTC1	Communication Media & Signal Transmission
2	DTC202	2DTC2	Mobile Communication Systems

S. No.	Paper Numerical Unique	Class & Papers	Paper Name / Subject
3	DTC203	2DTC3	Networking & Data Communication
4	DTC204	2DTC4	Digital Electronics & Microprocessors

Course Details (Semester – II)

- **Communication Media & Signal Transmission** – Coaxial, optical fiber, microwave, and satellite media.
- **Mobile Communication Systems** – GSM, CDMA, LTE architecture and mobile switching.
- **Networking & Data Communication** – LAN/WAN setup, routing, and network security basics.
- **Digital Electronics & Microprocessors** – Logic gates, flip-flops, counters, and 8085/8086 microprocessors.

Semester – III

S. No.	Paper Numerical Unique	Class & Papers	Paper Name / Subject
1	DTC301	3DTC1	Wireless Communication & Antenna Systems
2	DTC302	3DTC2	Optical Fiber Communication
3	DTC303	3DTC3	Telecommunication Switching Systems
4	DTC304	3DTC4	Industrial Electronics & Power Supplies

Course Details (Semester – III)

- **Wireless Communication & Antenna Systems** – Design and working of antennas, BTS towers, and repeaters.

- **Optical Fiber Communication** – Fiber construction, signal propagation, splicing, and testing.
- **Telecommunication Switching Systems** – Circuit, packet, and digital switching networks.
- **Industrial Electronics & Power Supplies** – Converters, rectifiers, and electronic power control.

Semester – IV

S. No.	Paper Numerical Unique	Class & Papers	Paper Name / Subject
1	DTC401	4DTC1	Satellite & Microwave Communication
2	DTC402	4DTC2	Internet of Things (IoT) & 5G Technology
3	DTC403	4DTC3	Telecommunication Management & Maintenance
4	DTC404	4DTC4	Project Work / Industrial Training

Course Details (Semester – IV)

- **Satellite & Microwave Communication** – Satellite link design, microwave propagation, and transponders.
- **Internet of Things (IoT) & 5G Technology** – Smart devices connectivity, sensors, and future communication trends.
- **Telecommunication Management & Maintenance** – Installation, fault finding, and telecom project supervision.
- **Project Work / Industrial Training** – Live project in telecom sector (BSNL, Airtel, Jio, etc.).