

Details of Certificate Program at Regional Telecom Training Centre,BSNL,Jaipur

SNo	Course Details	Course Syllabus
1	Certificate Course in Broadband Technology	<p>1 : Broadband Network Overview Broadband Overview</p> <ul style="list-style-type: none"> ➤ Broadband Network Architecture & Components ➤ Physical Layer Components <p>2: OSI & LAN concepts, Jumpering at MDF for broadband Connection/service</p> <ul style="list-style-type: none"> ➤ Jumpering at Main Distribution Frame ➤ Open System Interconnection Model ➤ Local Area Networks <p>3 :DSL Technologies, ADSL CPE & Security in WiFi Broadband access</p> <ul style="list-style-type: none"> ➤ IPv4 Addressing ➤ DSL Technologies ➤ ADSL CPE ➤ Securing WiFi BB Connection <p>4 :Digital Line Access Multiplexer [DSLAM], VLANs & Broadband Applications</p> <ul style="list-style-type: none"> ➤ VLAN ➤ DSLAM ➤ Broadband Applications <p>5 : Broadband Speed Measurement, Troubleshooting Broadband Connection & Various Broadband Access Technologies</p> <ul style="list-style-type: none"> ➤ Broadband Access Technologies ➤ Troubleshooting Broadband Connection ➤ Broadband Speed Constraints ➤ Measuring speed of Broadband connection
2	Certificate Course In IP,Networking and Cyber Security	<p>1 : Networking Concepts, TCP/IP & MPLS</p> <ul style="list-style-type: none"> ➤ TCP/IP model ➤ Basic networking concepts ➤ Networking protocols and media access control ➤ MPLS & MPLS-VPN <p>2 : Router Architecture & Routing Principles</p> <ul style="list-style-type: none"> ➤ Router components and its functions ➤ Routing principles ➤ Types of routing ➤ Routing algorithm <p>3: HTTP & FTP services</p> <ul style="list-style-type: none"> ➤ HTTP ➤ HTML ➤ FTP ➤ TFTP <p>4: DHCP & Proxy Services</p> <ul style="list-style-type: none"> ➤ DHCP ➤ Security in DHCP ➤ Proxy and Caching ,Advantages & disadvantages of proxy <p>5: Information & Cyber Security</p> <ul style="list-style-type: none"> ➤ Information security components ➤ Technology and defense ➤ Cyber security ,Security threats, Attack process & tools ➤ Desktop security, Guidelines for desktop security
3	Certificate Course in Mobile Communications	<ul style="list-style-type: none"> ➤ 1: Overview of Mobile Communication Handset and SIM. ➤ 2 : GSM_Network Building Blocks ➤ 3 : Signaling In Mobile Networks ➤ 4 : Mobile Internet Access - GPRS EDGE ➤ 5 : N/W PERFORMANCE, KPIS and OPTIMISATION

4	Optical Fiber Communication	<ul style="list-style-type: none"> ➤ Different types of Optical Fiber Cable ➤ Different Transmission Media ➤ Application of OF Cable and Optical Devices ➤ CHARACTERISTICS OF OPTICAL FIBER ➤ Optical Fiber Cable Installation <ul style="list-style-type: none"> • INSTALLATION OF CABLES IN UNDERGROUND DUCTS • INSTALLATION OF OPTICAL CABLES WITH THE MINI-TRENCH TECHNIQUE • INSTALLATION OF ARIAL CABLE • CABLE END PREPARATION FOR SPLICING ➤ Optical Fiber Splicing, Connectors and Couplers <ul style="list-style-type: none"> • End Preparation of Cable • Splicing of OFC • FIBER OPTIC COUPLER/SPLITTERS • Demo of OFC Laying Process ➤ Cable fault localization using OTDR) <ul style="list-style-type: none"> • OTDR • OTDR MEASUREMENTS • MEASUREMENT ARTIFACTS AND ANOMALIES IN OTDR • Link Engg , Power Meter_and_Other Measuring Instruments • OPTICAL POWER METER 6 • ATTENUATOR,POWER MARGIN ➤ LINK POWER BUDGET
5	Certificate Course in Digital Switching Systems	<ul style="list-style-type: none"> ➤ Overview of Telecom Switching Network ➤ Sub Administration ➤ Principles of ➤ Trunk administration and Hierarchy
6	Certificate Course in Telecom Support Infrastructure	<ul style="list-style-type: none"> ➤ Concept and working of Power Plant ➤ Battery, UPS and Earthling ➤ Air-conditioning and Fire Safety ➤ Engine Alternator and Energy Conservation ➤ Week 5 : Shelters and Towers
7	Certificate Course in Digital Transmission Systems	<ul style="list-style-type: none"> ➤ Different Transmission Media ➤ Identification of Connectors and Components ➤ SDH Technology (Version Aug 2013) ➤ Principles of Network Synchronization ➤ Network elements of SDH ➤ SDH-Networking-and-Protection (version Aug 2013) ➤ MS-SPRING ➤ Software Configuration in SDH Cross Connection ➤ Next Generation SDH ➤ Digital-Radio-System (Version Aug 2013) ➤ Electromagnetic Spectrum ➤ Microwave Radio Components ➤ Mini Link ➤ Broadband VSAT ➤ FTTH_and_DWDM (Version Aug 2013) ➤ FTTX ➤ DWDM ➤ Features of different PON standard