

# Bharat Sanchar Nigam Limited

## Regional Telecom Training Centre

(ISO 9001:2008 Certified Institution),  
Gachibowli, Hyderabad –500 032

### SCHEDULE OF 'BSNL CERTIFIED OPTICAL FIBRE COMMUNICATION ENGINEER' COURSE

Date	Session	Particulars
<b>Week-1 Day-1</b>	1 <sup>st</sup> Session	Registration, Introduction to RTTC and the Course briefing
	2 <sup>nd</sup> Sessions	Fundamentals of Communications
	3 <sup>rd</sup> Session	Fundamentals of Optical fibre Communications
<b>Week-1 Day-2</b>	1 <sup>st</sup> Session	Construction and types of O.F Cables
	2 <sup>nd</sup> Sessions	OF Components like pig tail, Patch cord, FDF
	3 <sup>rd</sup> Session	Practical - Cable identification, colour coding, connectors, attenuators, FDF etc.
<b>Week-1 Day-3</b>	1 <sup>st</sup> Session	Route planning and cable laying
	2 <sup>nd</sup> Sessions	Optical sources and detectors
	3 <sup>rd</sup> Session	Practical - OF cable preparation and splicing
<b>Week-1 Day-4</b>	1 <sup>st</sup> Session	OTDR and Testing instruments
	2 <sup>nd</sup> Sessions	Non linearities in OF cable and ITU-T Rec. of OF Cables
	3 <sup>rd</sup> Session	Practical – OF Cable preparation, Pig tail preparation and splicing
<b>Week-1 Day-5</b>	1 <sup>st</sup> Session	Practical - Ribbon splicing & OTDR and Testing instruments
	2 <sup>nd</sup> Sessions	Practical - Ribbon splicing & OTDR and Testing instruments
	3 <sup>rd</sup> Session	Practical - Ribbon splicing & OTDR and Testing instruments
<b>Week-2 Day-1</b>	1 <sup>st</sup> Session	Criterion Test-1 on OFC
	2 <sup>nd</sup> Sessions	PCM Principles
	3 <sup>rd</sup> Session	Line coding
<b>Week-2 Day-2</b>	1 <sup>st</sup> Session	FOTS, different PDH standards and Frame structures of 8,34 & 140 Mb systems
	2 <sup>nd</sup> Sessions	FOTS, different PDH standards and Frame structures of 8,34 & 140 Mb systems
	3 <sup>rd</sup> Session	8 Mb PDH Systems
<b>Week-2 Day-3</b>	1 <sup>st</sup> Session	34 Mb & 140 Mb PDH Systems
	2 <sup>nd</sup> Sessions	Practical - 8/34/140 Mb PDH Systems
	3 <sup>rd</sup> Session	Practical - 8/34/140 Mb PDH System performance analysis
<b>Week-2 Day-4</b>	1 <sup>st</sup> Session	Mastery test on OFC & PDH
	2 <sup>nd</sup> Sessions	Mastery test on OFC & PDH
	3 <sup>rd</sup> Session	Introduction to SDH
<b>Week-2 Day-5</b>	1 <sup>st</sup> Session	SDH Network Elements, Topology and protection
	2 <sup>nd</sup> Sessions	SDH Mapping and Multiplexing
	3 <sup>rd</sup> Session	SDH Mapping and Multiplexing

Date	Session	Particulars
<b>Week-3 Day-1</b>	1 <sup>st</sup> Session	Criterion Test-2 on PDH
	2 <sup>nd</sup> Sessions	SDH alarms & Synchronization
	3 <sup>rd</sup> Session	ITI FIBCOM SDH Equipment (AC 1 & AC 4 Family)
<b>Week-3 Day-2</b>	1 <sup>st</sup> Session	SDH Optical interfaces & LASER safety
	2 <sup>nd</sup> Sessions	Introduction to NGSDH
	3 <sup>rd</sup> Session	Practical – ITI FIBCOM STM-1 Equipment
<b>Week-3 Day-3</b>	1 <sup>st</sup> Session	TEJAS STM-4 & STM-16 SDH Systems
	2 <sup>nd</sup> Sessions	TEJAS STM-4 & STM-16 SDH Systems
	3 <sup>rd</sup> Session	Practical – TEJAS STM-4 Equipment
<b>Week-3 Day-4</b>	1 <sup>st</sup> Session	SDH Measurements and Testing of SDH equipments
	2 <sup>nd</sup> Sessions	SDH Measurements and Testing of SDH equipments
	3 <sup>rd</sup> Session	Practical – TEJAS STM-4 Equipment
<b>Week-3 Day-5</b>	1 <sup>st</sup> Session	DWDM – An Overview
	2 <sup>nd</sup> Sessions	DWDM System ( 32 Channel ITI System)
	3 <sup>rd</sup> Session	Practical – TEJAS STM-16 Equipment
<b>Week-4 Day-1</b>	1 <sup>st</sup> Session	Criterion Test 3 on SDH
	2 <sup>nd</sup> Sessions	Practical – TEJAS STM-16 Equipment
	3 <sup>rd</sup> Session	Practical – DWDM System ( 32 Channel ITI System)
<b>Week-4 Day-2</b>	1 <sup>st</sup> Session	Optical Fibre access network (FTTH)
	2 <sup>nd</sup> Sessions	GPON & AOLT
	3 <sup>rd</sup> Session	Practical – Mastery Test 2 on SDH
<b>Week-4 Day-3</b>	1 <sup>st</sup> Session	Field Visit – SDH Systems
	2 <sup>nd</sup> Sessions	Field Visit – SDH Systems
	3 <sup>rd</sup> Session	Field Visit – SDH Systems
<b>Week-4 Day-4</b>	1 <sup>st</sup> Session	Field Visit – DWDM Systems
	2 <sup>nd</sup> Sessions	Field Visit – DWDM Systems
	3 <sup>rd</sup> Session	Field Visit – DWDM Systems
<b>Week-4 Day-5</b>	1 <sup>st</sup> Session	Field Visit – AOLT (GPON) Systems
	2 <sup>nd</sup> Sessions	Field Visit – AOLT (GPON) Systems
	3 <sup>rd</sup> Session	Discussion and Evaluation Session

## Timings

Daily (For 5 days)	Time	Particulars	Time	Particulars
	09-30 to 11.00	1 <sup>st</sup> Session	11.00 to 11.15	Tea Break
	11.30 to 12.45	2 <sup>nd</sup> Session	12.45 to 13.45	Lunch Break
	13.45 to 15.15	3 <sup>rd</sup> Session		