

TELECOM SYLLABUS:

A. OPTIC FIBRE COMMUNICATION SYSTEM:

OFC Cable designs, power budget, power drops, ADSS,OPGW, Approach cable, Pig Tail, maximum Band rate, Bit rate, maximum Band width.

B. POWER LINE CARRIER COMMUNICATION:

Maximum Band rate, Bit rate, maximum Band width

C. VERY SMALL APERTURE TERMINAL (VSAT):

BASICS OF SATELLITE COMMUNICATION – INTRODUCTION

D. SLDC SYSTEM:

Transmission open system protocols used in RTU to ALDC (Area Load Dispatch Centre), FEP (Front End Processor), Polling, Modbus,

E. NETWORKING:

F. MICROWAVE COMMUNICATION SYSTEM:

G. ASSOCIATED SYSTEMS FOR COMMUNICATION EQUIPMENT:

Specific gravity, EMF, Voltage, Current w.r.t batteries, Fold back, Feedback
Batteries: Lead Acid and SMF batteries procedure for commissioning of the battery set – Maintenance procedure.

H. VHF COMMUNICATIONS :

I. TRANSMISSION LINES AND SUB-STATIONS :

- Clearances of power conductors from ground from neighboring power line – distance protection systems - Transformer protection, all very
- Noise in power systems
- Sustained white noise and impulse noise
- Generation of harmonics in HVDC system
- HVDC transmission system in APTRANSCO

J. DIGITAL PROTECTION OF POWER SYSTEM:

1. Fundamentals of Digital protection
2. Principals of operation, Protocol standards

K. SUB-STATION AUTOMATION SYSTEM:

1. Basic Elements
2. Gateway configurations

L. CYBER SECURITY:

1. Cyber security and its vulnerabilities
2. NERC-CIP Compliance

M. VOIP:

1. What is VOIP
2. VOIP operation

N. HMI:

1. Introduction of HMI
2. Features of HMI

O. NMS:

1. Functional areas of NMS
2. Network Management standards and Protocols-SNMP, TCP/IP TELNET etc

P. UNMS:

1. Applications /Functions of UNMS
2. Benefits of UNMS

Q. MPLS TECHNOLOGY:

1. MPLS (Multi Protocol Label Switching) Technology Basics
2. MPLS Concepts

R. CELLULAR & MOBILE COMMUNICATION:

1. GSM & features
2. Cellular services-Voice, SMS, MMS, GPS & WAP