

**PNS SCHOOL OF ENGINEERING & TECHNOLOGY, MARSHAGHAI, KENDRA APARA
DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

BRANCH -ETC	SEMESTER-05	NAME OF THE FACULTY ER.AMARENDRA SAHOO
Th.4 WAVE PROPAGATION & BROADBAND COMMUNICATION ENGINEERING	NO. OF DAYS PER WEEK CLASS ALLOTTED : 05	SEMESTER FROM DT-01.08.2023-30-11-2023
WEEK-01	Unit-1: WAVE PROPAGATION & ANTENNA	Unit-1: WAVE PROPAGATION & ANTENNA
WEEK-02		1.2 Classification based on Modes of Propagation- Definition – critical frequency, max. useable frequency, Troposphere scatter propagation actual height and Definition - Antenna gains, Directive gain, Directivity, polarization, input impedance, efficiency, Radiator
WEEK-03		Antenna -types of antenna: Mono pole dipole antenna and omni directional antenna Operation of following antenna with advantage & a) Directional high frequency antenna : , Yagi Rohmbus only UHF & Microwave antenna.: Dish antenna Horn antenna Basic Concepts of Smart Antennas- REVISION & DOUBT CLEARING
WEEK-04	Unit-2: TRANSMISSION LINES.	Unit-2: TRANSMISSION LINES.
WEEK-05		2.2 Equivalent circuit of transmission line & RF 2.3 Characteristics impedance, methods of 2.4 Losses in transmission line 2.5 Standing wave – SWR, VSWR, Reflection coefficient, 2.6 Quarter wave & half wavelength line 2.7 Impedance matching & Stubs – single & double 2.8 Primary & secondary constant of X-mission line. REVISION & DOUBT CLEARING
WEEK-06		Unit-3: TELEVISION ENGINEERING Video bandwidth, Interlaced
WEEK-07	Unit-3: TELEVISION ENGINEERING	3.2 TV Transmitter – Block diagram & function of each 3.3 Monochrome TV Receiver -Block diagram & function 3.4 Colour TV signals (Luminance Signa Chrominance Signal,(I & Q,U & V Signals).
WEEK-08		3.5 Types of Televisions by Technology- cathode-ray s, Plasma Display Panels, Digital Light ,Liquid Crystal Display (LCD),Organic Light-Emitting 3.6 Discuss the principle of operation - LCD displayLarge 3.7 CATV systems & Types & networks 3.8 Digital TV Transmission of digital TV signals Digital TV receiver Video
WEEK-08		Unit-4: MICROWAVE ENGINEERING. 4.2 Operation of rectangular wave gives and its

