

Khaja Bandnawaz University, Kalaburagi
Faculty of Engineering and Technology
Department of Electronics and Communication Engineering

Ph.D. Entrance Exam Syllabus

Specialization: Digital Communication (M.Tech Level)

Digital Communication:

Signals & Systems:

Fourier series, Fourier Transform, Laplace Transform, Z-transform

Sampling theorem, aliasing, reconstruction

Random variables & stochastic processes

PSD, autocorrelation, stationarity, ergodicity

Digital Modulation Techniques:

ASK, FSK, PSK, DPSK, QPSK, QAM, MSK, GMSK, OFDM, MIMO-OFDM
performance in AWGN & fading channels
Coherent & non-coherent detection

Digital Communication Systems:

Spread spectrum: DSSS, FHSS, CDMA,

Wireless Communication:

Multiple access: FDMA, TDMA,