

15EC61

OR

- 6 a. Derive the expression for error probability of BFSK. (08 Marks)
b. With block diagram explain generation and detection of DPSK. (08 Marks)

Module-4

- 7 a. What is ISI? Obtain the expression of output of a filter with intersymbol interference. (08 Marks)
b. Explain the Nyquist criterion for distortionless baseband binary transmission and obtain the ideal solution for zero ISI. (08 Marks)

OR

- 8 a. Draw and explain the time-domain and frequency domain of duobinary and modified duobinary signal. (08 Marks)
b. What is channel equalization? With a neat diagram, explain the concept of equalization using a linear transversal filter. (08 Marks)

Module-5

- 9 a. Draw the 4 stage linear feedback shift register with 1st and 4th state is connected to Modulo-2 adder. Output of Modulo-2 is connected to 1st stage input. Find the output PN sequence and write the autocorrelation function with initial state 1000. (06 Marks)
b. Explain the generation of direct sequence spread spectrum with relevant waveforms and spectrums. (07 Marks)
c. Write a short note on application of spread spectrum in wireless LAN's. (03 Marks)

OR

- 10 a. With necessary block diagram, explain the transmitter and receiver of frequency hop spread spectrum. (08 Marks)
b. With a neat block diagram, explain the CDMA system based on IS-95. (08 Marks)
