

Module-4

- 7 a. Explain predictive decision –feedback equalizer with the aid of a diagram and relevant equations. (08 Marks)
b. Explain adaptive equalization based on decisions from viterbi decoder. (06 Marks)
c. Write a note on convergence properties of LMS algorithm. (06 Marks)

OR

- 8 a. Explain adaptive zero forcing algorithm with the aid of block diagram. (10 Marks)
b. With the aid of relevant equations and block diagram, explain LMS algorithm which minimizes the MSE. (10 Marks)

Module-5

- 9 a. List some applications of direct sequence spread spectrum signals. Also explain transmission of low-detectability signal and digital cellular CDMA system based on DS spread spectrum. (10 Marks)
b. What are the two phases in time synchronization of the receiver to the received spread spectrum signal? Explain delay locked loop for PN code tracking. (10 Marks)

OR

- 10 a. Explain the model of spread spectrum digital communication system. (06 Marks)
b. Explain gold sequence in terms of generation, and auto-correlation function. (07 Marks)
c. With the aid of a block diagram explain time-hopping spread spectrum system. (07 Marks)
