## **Tutorial 5**

- **Q.1** A digital signal has eight levels. how many bits are needed per level?
- **Q.2** We need to download text documents at the rate of 100 pages per minute. What is the required bit rate of the channel? (Assume each page have 24 lines and each line have 80 characters).
- **Q.3** Draw the digital signal for following data using NRZ-L, NRZ-I, RZ, Manchester, Differential Manchester encoding schemes:
- a) 10110010
- b) 11101010
- **Q.4** How does Manchester encoding helps in achieving better synchronization?