ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : MAY / JUNE 2010

REGULATIONS : 2007

THIRD SEMESTER

070250003 - PRINCIPLES OF DIGITAL COMMUNICATION (COMMON TO CSE / IT)

TIME : 3 Hours Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. Define shape factor.
2. List the advantages of RF amplifiers.
3. Write the differences between Frequency modulation and Phase modulation.
4. What do you mean by Deviation ratio?
5. State Hartley,s law.
6. What do you mean by Frequency shift keying?
7. Define Carrier Recovery.
8. Write the mathematical expression for Amplitude- shift keying.
9. List the various pulse modulation techniques.
10. State Nyquist sampling theorem.
11. Define Coding efficiency wit respect to PCM.
12. What do you mean by Granular noise?
13. List the various modes of transmission for data communication circuits
14. Give some examples for multipoint network topologies.
15. List out the types of data communication equipments.
16. Write the functions of UART.
17. Write down the features of Spread –spectrum modulation.
18. What do you mean by Multiple –Access technique?
19. Define Directive gain.
20. What do you mean by Effective aperture?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. Explain the working of Super heterodyne receiver with neat block diagram.

22. Explain in detail about the working of a BPSK transmitter and BPSK receiver with neat block diagram.

23. With neat block diagram explain the working of PCM transmission system.

24. a. Describe in brief about Inter-symbol Interference. 8

    b. Write short notes on Eye patterns. 4

25. Explain in detail about error detection in data communication.

26. a. Describe in brief about data communication protocols. 8

    b. Write short notes on data communication standards. 4

27. a. Describe in brief about generation of Pseudo –Noise sequences. 8

    b. Write down the properties of Maximal- Length sequences. 4

28. Explain in detail Noise analysis at Receiver of Communication System.

*****THE END*****