Reg. No. : | | | | | | | | | | |

Question Paper Code: 31457

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fifth Semester

Electrical and Electronics Engineering

01UEC523 – COMMUNICATION ENGINEERING

(Common to EIE and ICE)

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define Single sideband suppressed carrier AM.
2. State Carson rule.
3. List the effects of ‘M’ in M-ary digital modulation technique.
4. Difference between BPSK and QPSK.
5. Define NRZ.
6. Define linear block codes.
7. Mention the features of TDMA.
8. Define spread spectrum.
9. Define single mode and multi mode propagation.
10. What are the advantages of hetero junction LEDs?

PART - B (5 x 16 = 80 Marks)

11. (a) Draw the block diagram for the generation and demodulation of a VSB signal and explain the principle of operation. (16)

Or

(b) Explain the operation of Super heterodyne receiver and compare its performance with Tunal Radio frequency receiver. (16)

12. (a) Explain the functioning of a ASK and PSK digital transmitter cum receiver operation. (16)

Or

(b) Explain in detail about the QAM and MSK and its waveform. (16)

13. (a) With suitable example explain the various line coding techniques. (16)

Or

(b) Encode the data 01001110 using NRZ, RZ, AMI coding. (16)

14. (a) Discuss in detail the concept of TDMA and SDMA and their applications in wire and wireless communication. (16)

Or

(b) How is interference avoided by using code division multiplexing? Explain. (16)

15. (a) (i) Explain the block diagram of an optical fiber communication system. (10)

(ii) Give the comparison of the LED and LASER. (6)

Or

(b) Explain briefly about optical link. (16)