C 58376

Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2009

AI 04 604—ELECTRONIC COMMUNICATION SYSTEMS

(2004 Admissions)

Time : Three Hours Maximum : 100 Marks

I. (a) Write the basic types of transmission lines and define the characteristic impedance.

(b) Write the difference between PM and FM.

(c) What is meant by IF ? And how is it selected.

(d) Write the concepts of PPM with neat waveforms.

(e) Explain the principle of FSK and PSK.

(f) Explain the concepts of WDM.

(g) Explain the frequency reuse concept in cellular system.

(h) Write short notes on electrical telemetry.

(8 × 5 = 40 marks)

II. (a) Explain the basic principle of operation of antennas and explain the antenna types with neat diagrams.

Or

(b) Explain how SSB is generated and discuss the advantages of SSB over AM.

III. (a) Explain the modulation and demodulation of PAM and PWM.

Or

(b) Construct the super heterodyne receiver and explain the operation.

IV. (a) Explain the concepts advantages and applications of PCM.

Or

(b) Discuss the advantages of M-any signaling schemes over binary schemes with example.

V. (a) Discuss the operation of microwave transmitter, receiver and repeaters.

Or

(b) Explain the analog and digital techniques in tele control.

(4 × 15 = 60 marks)