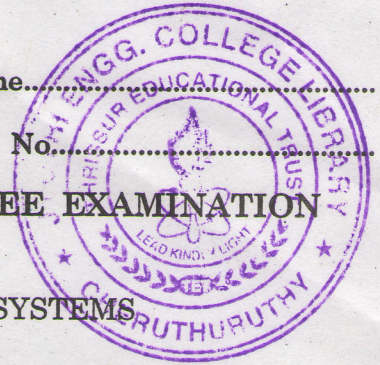C 14728

Name.......................

Reg. No...................

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2010

AI 04 604—ELECTRONICS COMMUNICATION SYSTEMS

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

I. (a) Define characteristic impedance and SWR of a transmission line.

   (b) Write the advantages of FM over AM.

   (c) What is the significance of Automatic Gain control ?

   (d) Write the concepts of PAM.

   (e) Write the advantages of M-array signaling schemes.

   (f) Write the features of TDM.

   (g) Write the functions of repeaters in microwave transmission.

   (h) Write short notes on landline telemetry.

(8 × 5 = 40 marks)

II. (a) Explain the principle and generation of SSB and discuss its advantages over AM.

(15 marks)

Or

   (b) (i) Draw the Electromagnetic spectrum. (7 marks)

   (ii) Discuss the elements of communication system. (8 marks)

III. (a) Draw the block diagram of superheterodyne receiver and explain the operation.

Or

   (b) Explain the generation and demodulation of PWM and PPM. (15 marks)

IV. (a) Explain the principle and advantages of PCM.

Or

   (b) Explain the digital modulation schemes—ASK, FSK and PSK with neat waveforms.

(15 marks)

V. (a) Explain the functions of fiber optic link with neat diagrams.

Or

   (b) Explain the analog and digital techniques in telecontrol. (15 marks)

(4 × 15 = 60 marks)