Name.....

Reg. No.

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2010

AI 04 604—ELECTRONIC COMMUNICATION SYSTEMS

(2004 Admissions)

Time: Three Hours

Maximum: 100 Marks

- I. (a) Draw the basic elements of communication system and explain.
 - (b) Explain the concept of SSB and how does it differ from AM.
 - (c) Explain the significance of IF and its selection.
 - (d) Write the principle and generation of PPM.
 - (e) Explain the concepts of delta modulation.
 - (f) Compare the features of ASK and FSK.
 - (g) Write the function of Optical fiber link.
 - (h) Write short notes on electrical telemetry.

 $(8 \times 5 = 40 \text{ marks})$

II. (a) Compare the advantages and disadvantages of FM over AM.

(15 marks)

Or

(b) Explain the principle of operation of antenna and give antenna types.

(15 marks)

III. (a) (i) Construct SSB receiver and explain.

(8 marks)

(ii) Write the principle of PAM.

(7 marks)

Or

(b) Draw the block diagram of FM receiver and explain.

(15 marks)

IV. (a) Explain the generation and demodulation of DPCM.

(15 marks)

Or

(b) Compare the features of TDM, FDM and WDM.

(15 marks)

V. (a) Explain the concepts of cellular radio system.

(15 marks)

Or

(b) Draw the block diagram of microwave transmission and explain.

(15 marks)

 $[4 \times 15 = 60 \text{ marks}]$