

Code: 15A04410

B.Tech II Year II Semester (R15) Regular Examinations May/June 2017

PRINCIPLES OF COMMUNICATION
(Electronics and Instrumentation Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What do you understand by the term 'Radio communication'?
 - (b) Give the function of electrical communication system.
 - (c) List out the salient features of DSBSC.
 - (d) Compare FM and PM.
 - (e) Give the statement of sampling theorem for band limited signals.
 - (f) What is 'Pulse modulation'?
 - (g) What is the effect of quantization?
 - (h) List out the advantages of PSK.
 - (i) What do you mean by block codes?
 - (j) Define the term 'coding efficiency'.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 With a neat block diagram, explain about the operation and application of 'Electrical communication system'.

OR

- 3 Discuss in detail about various types of signals and noise.

UNIT – II

- 4 With a neat diagram, explain about the generation of SSBSC.

OR

- 5 Discuss in detail about the Narrow band and wide band FM.

UNIT – III

- 6 Explain in detail about regeneration of base band signals.

OR

- 7 Discuss the need & advantages and applications of time division multiplexing.

UNIT – IV

- 8 With a neat block diagram, explain in detail about PCM.

OR

- 9 List out various digital modulation schemes. Explain in detail about any one of them.

UNIT – V

- 10 Discuss in detail about the source coding for optimum rate of information.

OR

- 11 Explain the basic concept involved in convolution codes.
