R15

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)
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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.

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