Code: 9A10505

R9

B.Tech III Year I Semester (R09) Supplementary Examinations, May 2012

PRINCIPLES OF COMMUNICATIONS

(Common to E.Con.E and EIE)

Time: 3 hours Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

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1 (a) Define power spectral density and convolution.
(b) Discuss the differences between analog and digital communications.

2 (a) Explain the need for modulation in a communication system.
(b) Explain how the ring modulator for generation of DSB-SC wave acts as a demodulator.

3 (a) Give advantages of FM over AM.
(b) How do you generate wide band FM. Explain with a block diagram approach.

4 (a) State and explain sampling theorem.
(b) Write differences between PWM and PPM.

5 (a) Define quantization and discuss the effect of quantization.
(b) Explain the block diagram of PCM.

6 (a) With a block diagram explain.
(b) Compare ASK and FSK.

7 (a) Explain coding efficiency.
(b) Define rate of information and explain the entropy.

8 (a) Write a short note on correction code.
(b) With an example explain convolution code.

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