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IT-227
B.E. IV Semester
Examination, June 2017
Choice Based Credit System (CBCS)
Communication System

Time : Three Hours

Maximum Marks : 60

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Discuss and draw block diagram of communication system.
   b) Write a short notes on www.rgpvonline.com
      i) Unshielded twisted pair and shielded twisted pair
      ii) Guided and unguided media

2. a) Discuss the utility of channel coding. How does it affect the Bandwidth efficiency of channel?
   b) What is Fourier transforms? Discuss time domain and frequency domain representation of signal.

3. a) Discuss time and frequency convolution theorem.
   b) Find the Fourier transform of a sync function given as $s(t) = A \, sinc(2\omega t)$

4. a) Discuss the advantages and disadvantages of AM.
   b) Discuss the following method of generation of AM wave.
      i) Square law modulator
      ii) Switching modulator   www.rgpvonline.com

5. a) What is Angle Modulation? Discuss the various types of angle modulation.
   b) Discuss the difference between FM and PM.

6. a) Derive an expression for figure of merit for SSB-SC system.
   b) State and prove sampling theorem for low pass signal.

7. a) Explain ASK, FSK and PSK modulation techniques.
   b) Discuss pre-emphasis and de-emphasis in FM.

8. Write short notes on
   a) AM transmitters
   b) PWM systems   www.rgpvonline.com

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