Roll No ....

EX-6001 (CBGS)
B.E. VI Semester
Examination, May 2018
Choice Based Grading System (CBGS)
Communication Engineering
Time : Three Hours
Maximum Marks : 70

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

1. a)　Find Fourier transform of the following functions and sketch them:

　　i)　$sgn\ (t)$

　　ii)　$\cos \omega_0 t\ u(t)$

　b)　Explain signal and its types.

2. a)　Define PSD of a signal and list the properties of it.

　b)　Define and explain the following:

　　i)　Autocorrelation

　　ii)　Convolution

3. a)　With the help of circuit diagram, explain the working of balanced modulator for DSB-SC generation.

　b)　Find the expression for FM wave and define modulation index.

4. a)　What is VSB transmission? Why is it used?

　b)　What is the effect of phase and frequency errors in synchronous detection? Explain.　rgpvonline.com

5. a)　Explain the function of IF amplifier. Also mention the selection procedure of intermediate frequency.

　b)　Draw the block diagram of a receiver using AGC. Explain the principle of AGC.

6. a)　State and prove sampling theorem. Also, draw the spectrum of sampled signal.

　b)　Explain the generation and reception of BPSK scheme.

7. a)　Draw and explain the general block diagram of an earth station. Also, write down its main RF sub-systems.

　b)　Explain the advantage of TDMA over FDMA.

8. Write short notes on (any three):

　i)　PCM

　ii)　Transponders

　iii)　TRF receivers

　iv)　QAM

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