Reg. No. : | | | | | | | | | | |

Question Paper Code: 34045

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

Fourth Semester

Electronics and Communication Engineering

01UEC405 – ANALOG COMMUNICATION

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Define Amplitude Modulation.
2. Give a note on non-linear distortion.
3. Define frequency deviation.
4. Define modulation index of an FM.
5. Write down the equation for time-averaged autocorrelation function.
6. State central limit theorem.
7. Define noise figure.
8. Define pre-emphasis and De-emphasis.
9. State Sampling theorem.
10. What is compander?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain any one type of generation and demodulation of AM. (16)

Or

(b) Explain the coherent detection of DSB-SC wave with neat diagram. (16)

12. (a) Explain the indirect method of generation of FM wave and any one method of demodulating an FM wave. (16)

Or

(b) How will you generate narrow band and wideband FM. (16)

13. (a) Explain the properties of Gaussian process. (16)

Or

(b) Define autocorrelation. Discuss the properties of autocorrelation function. (16)

14. (a) Derive an expression for the noise in DSB-SC receiver system using coherent detection. (16)

Or

(b) Draw the block diagram of superheterodyne radio receiver and explain its each block. (16)

15. (a) State and prove the sampling theorem. (16)

Or

(b) Discuss the generation and degeneration of PWM. Explain how you will convert PWM to PPM with diagram. (16)

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