Name...

Reg. No..

## FOURTH SEMESTER B.TECH. (ENGINEERING) [14 SCHEME EXAMINATION, APRIL 2016

EC 14 406—ANALOG COMMUNICATION

Time: Three Hours

Maximum: 100 Marks

## Part A

Answer all questions.

- I. (1) What do you mean by signal distortion?
  - (2) Write short notes on de-emphasis.
  - (3) What is continuous wave modulation?
  - (4) Write short notes on frequency synthesis.
  - (5) What is probability density function?
  - (6) Write short notes on ergodic process.
  - (7) What do you mean by bandpass noise?
  - (8) Write short notes on FM threshold effect.
  - (9) Define noise and list its types.
  - (10) Explain about capture effect.

 $(8 \times 5 = 40 \text{ marks})$ 

## Part B

II. (a) Explain in detail about amplitude modulation and its generation and transmission.

Or

- (b) Discuss in detail about DSB-SC, SSB and VSB signals and spectra.
- III. (a) Explain in detail about quadratic carrier and time division phase locked loop operation.

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- (b) Discuss in detail about signals and spectra of Pulse Amplitude Modulation.
- IV. (a) Explain in detail about statistical averages and random processes.

Or

- (b) Elaborate about baseband signal transmission with noise.
- V. (a) Explain in detail about linear continuous wave modulation with noise.

Or

(b) Discuss about analog pulse modulation with noise.

 $(4 \times 15 = 60 \text{ marks})$