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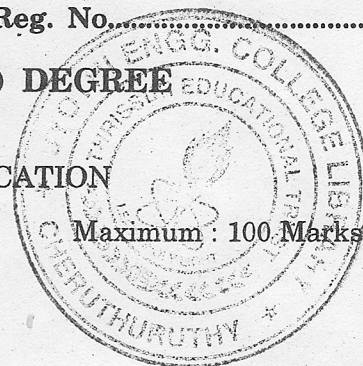
Name.....

Reg. No.....

**FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2010**

EE 04 501—ANALOG AND DIGITAL COMMUNICATION

Time : Three Hours



Maximum : 100 Marks

Answer all questions.

1. (a) Describe briefly about white noise.
(b) Explain the properties of Gaussian random process.
(c) Write notes on ensemble and time average.
(d) Explain envelope detection of AM.
(e) Describe briefly of PAM.
(f) Explain channel coding theorem.
(g) Write notes on PCM.
(h) State and explain Hartley theorem.

(8 × 5 = 40 marks)

2. (a) (i) What is a Stationary process ? Explain with an example with sense stationary process.

(7 marks)

- (ii) State and prove Wiener-Khinchin-Einstein theorem.

(8 marks)

Or

- (b) (i) Explain frequency domain representation of finite energy signal and periodic signals.

(8 marks)

- (ii) With an example explain ensemble and time averages.

3. (a) Describe the generation of AM signal.

(15 marks)

Or

- (b) Explain different method of generation of FM signal.

(15 marks)

4. (a) Discuss different multi level signalling schemes.

(15 marks)

Or

- (b) Explain delta modulation and PPM.

(15 marks)

5. (a) Discuss linear block codes with necessary diagram.

(15 marks)

Or

- (b) Explain CDMA technique.

(15 marks)

[4 × 15 = 60 marks]