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Name.....

Reg. No.....

FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2008

EE 04 501—ANALOG AND DIGITAL COMMUNICATION

(2004 Admissions)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

Part A

I. (a) What is meant by white process ?

(b) Define Nyquist rate and Nyquist interval.

(c) List out the advantages of FM technique.

(d) What do you mean by pre-emphasis and De-emphasis also explain in brief ?

(e) What is line loading, explain it ?

(f) Explain the elements used in digital passband transmission.

(g) Explain circuit switching methods.

(h) Define CDMA also explain its operation.

(8 × 5 = 40 marks)

Part B

II. (a) Explain the method of calculating Nyquist rate, Nyquist frequency.

Or

(b) Explain the power spectral and energy spectral density, also compare these two to get output value.

(15 marks)

III. (a) What are all the types of AM scheme ? Explain PAM method in detail.

Or

(b) Explain the FSK method of modulation and compare FSK and ASK.

(15 marks)

IV. (a) Explain the working and operation of AM transmitter block diagram in detail.

Or

(b) What is meant by JFET reactance modulator and also explain its principle of operation ?

(15 marks)

V. (a) Define network topologies and also draw and explain their in brief.

Or

(b) Explain in detail the channel coding theorems with neat and necessary diagram.

(15 marks)

[4 × 15 = 60 marks]