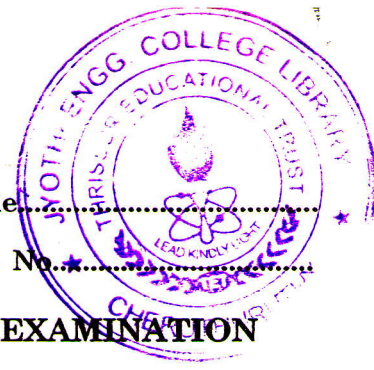


D 51610

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]