

C 31621

Name.....

Reg. No.....



**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION**

**MAY/JUNE 2007**

**EC 2K 804—COMMUNICATION SWITCHING SYSTEMS**

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

- I. (a) Discuss the characteristics of Electronic control schemes.  
(b) Discriminate between Microprogrammed control and Hard-wired control.  
(c) For a lost calls returned system, obtain the expression for effective arrival rate.  
(d) Explain briefly on the Grade of Service in a traffic network.  
(e) Name and explain the three layers of DMS-100 switch.  
(f) Discuss briefly about Internal blocking.  
(g) Explain briefly about the various signalling techniques.  
(h) Explain the two modes of operation of (CCS) common channel signalling.  
(8 × 5 = 40 marks)
- II. (a) Explain in detail the various switching network configurations and elements of a switching system.  
*Or*  
(b) Explain a two-stage Time-Space (TS) switch and a Space-Time (ST) switch configurations.  
(15 marks)
- III. (a) Explain in detail a three-stage non-blocking network with neat diagram.  
*Or*  
(b) Discuss ATRTSESS digital system with a neat block diagram.  
(15 marks)
- IV. (a) Give an account on the blocking probability of a traffic network.  
*Or*  
(b) Discuss in detail the various Markov processes.  
(15 marks)
- V. (a) Compare Inchannel and Common channel signalling.  
*Or*  
(b) Explain self routing switches.  
(15 marks)

[4 × 15 = 60 marks]