C 20274

Name .....

Reg. No .....

EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2006

EC 2K 804—COMMUNICATION SWITCHING SYSTEMS

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

1. (a) Explain briefly the various elements of a switching system.
   (b) Discuss briefly about stored program control.
   (c) Draw the schematic of two-stage cross point switching network (blocking network) for 6 lines.
   (d) Explain briefly the three layers of DMS-100 switch.
   (e) Explain the terms :
      (i) Call Completion Rate (CCR).
      (ii) BHCA.
      (iii) Traffic Intensity.
   (f) Discuss in brief about the various state transitions occuring at a Birth-Death process.
   (g) Name the various Inchannel signalling systems and give its applications.
   (h) Discuss the two modes of operation of common channel signalling.

(8 × 5 = 40 marks)

2. (a) Explain in detail the functions of dual chain distributed control.

Or

   (b) Discuss Time Multiplexed Time Switching.

(15 marks)

3. (a) Discuss Lee's simulation technique for evaluating blocking probabilities.

Or

   (b) Give an account on AT & T No.5 ESS digital switching system.

(15 marks)

4. (a) Explain Birth-Death processes obtaining the necessary steady state equations.

Or

   (b) Derive the expression for Erlang C formula.

(15 marks)

5. (a) Explain the Bell D2 24 channel multiframe PCM signalling structure.

Or

   (b) Give an account on Bense network and ATM routers.

(15 marks)

[4 × 15 = 60 marks]