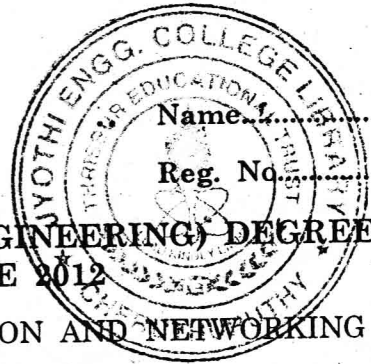C 28935

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2012

EC 04 704—COMPUTER COMMUNICATION AND NETWORKING

Time : Three Hours

Maximum : 100 Marks

Answer **all** *questions.*

1. (a) Why admission control for VBR is hard when compared to CBR.

   (b) Comment on the performance of frame relay when compared to other techniques.

   (c) What does the service primitive active open, allocate and unspecified passive open do ?

   (d) What are the functions of SONET layers ?

   (e) Explain about Markov chain.

   (f) Differentiate between M/M/1 queue and M/G/1 queue.

   (g) Explain about switched virtual convection in ATM.

   (h) Comment on the user related attributes of QOS.

   (8 × 5 = 40 marks)

2. (a) Discuss the access methods and operation of DQDB.

   Or

   (b) Explain the different layers of OSI model.

3. (a) Describe in detail about congestion control in TCP.

   Or

   (b) Explain about SDH and TCP header.

4. (a) Derive the characteristics of finite capacity, single server Poisson queue model (M/M/1).

   Or

   (b) (i) A fair dice is tossed repeatedly. If X_n denotes the maximum of the numbers. Occuring in the first n tosses, find the transition probability matrix p of the Markov chain $\{X_n\}$. Find also p^2 and P ($X_2 = 6$).

   (7 marks)

   (ii) Write briefly about Little's theorem.

   (8 marks)

5. (a) Discuss the switching and routing in ATM.

   Or

   (b) Describe in detail about AAL5 and statistical multiplexing.

   [4 × 15 = 60 marks]