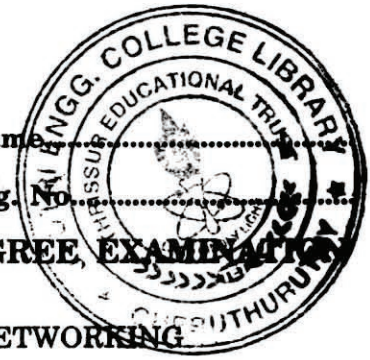C 42682

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SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, MAY 2013

EC 04 704—COMPUTER COMMUNICATION AND NETWORKING

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

I. 1 Explain the stop and wait protocol.

2 Explain about LRC and VRC with an example.

3 Explain about the TCP service.

4 How alternate routing scheme is used in circuit switching networks.

5 Patients arrive at a clinic according to Poisson distribution at a rate of 30 patients /hour. The waiting room does not accommodate more than 14 patients. Examination time per patient is exponential with mean rate of 20 per hour. Find the effective arrival rate at the clinic . What is the probability that an arriving patient will not wait ?

6 Explain about Poisson process.

7 Explain about user plane and management plane.

8 Explain the uses of VCC.

(8 × 5 = 40 marks)

II. (a) Describe in detail the working of Token ring.

Or

(b) Discuss briefly about IPV6.

III. (a) Describe the working of SONET with suitable figures.

Or

(b) With the help any two methods explain how congestion is controlled in TCP.

Turn over

IV. (a) Discuss in detail the M/M/m/m queuing models.

Or

(b) Derive the characteristics of infinite capacity, single server Poisson queue model $M|M|1$: (∞/FIFO) when $\lambda_n = \lambda$ and $\mu_n = \mu \, (\lambda < \mu)$.

V. (a) Discuss the characteristics of AAL of ATM.

Or

(b) Explain :

    (i) The traffic management in ATM and

    (ii) IP over ATM.

(4 × 15 = 60 marks)