

ANNA UNIVERSITY, COLLEGE OF ENGINEERING
B.E DEGREE EXAMINATIONS, April/May 2013
SEMESTER VII

IT9026-TCP/IP DESIGN AND IMPLEMENTATION

Time: 3Hrs

Max.Marks: 100

Answer all questions
PART A (10 x 2 = 20 Marks)

1. State the need for subnetting?
2. Draw the packet format of RARP.
3. Draw the flow diagram of TCP termination.
4. How TCP initiates retransmission of data?
5. What is the need of fragmentation?
6. What is the role of ICMP?
7. Specify the contents of a TCB.
8. List down the various states of TCP FSM.
9. What is the need for adaptive retransmission?
10. How PUSH operation is initiated in TCP?

PART B (5 x 16 = 80 Marks)

11. a) Explain any four ICMP messages with their format in detail. (8)

b) Explain Subnetting and Supernetting with examples. (8)

12. a) Draw the sketch of TCP header and explain the various fields in detail. (16)

Or

b) i) Write notes on TCP Timer management in detail.. (8)

ii) Explain the various states involved in TCP connection termination (8)

13. Write a routine for fragmentation and reassembly that is carried out in networks during data transmission. (16)

Or

b) i) Explain in detail about any two routing algorithms in networks. With suitable example show the behavior of your chosen algorithm. (16)

14. a) Write down the appropriate data structure for TCP input and output processing and explain. (16)

Or

b) Write notes on

i. TCB (8)

ii. Mutual exclusion in TCP data processing. (8)

15. a) Write the routines for TCP timer deletion and insertion. (16)

Or

b) Explain the various TCP congestion avoidance mechanisms in detail. (16)