

**UNIVERSITY OF PUNE**  
**[4363]-263**  
**T. E.(IT Semester-I)Examination - 2013**  
**COMPUTER NETWORK TECHNOLOGY**  
**(2008 Pattern)**

**[Total No. of Questions:]**  
**[Time : 3 Hours]**

**[Total No. of Printed Pages :2]**  
**[Max. Marks : 100]**

- (1)Answers to the **two sections** should be written in  
**separate answer-books.***  
*(2) Neat diagrams must be drawn wherever necessary.*  
*(3) Assume suitable data, if necessary.*

**SECTION-I**

- Q1 a) Explain Multi Protocol Label Switching architecture. [8]  
b) Compare between distance vector routing and link state routing protocol [8]

**OR**

- Q2 a) Explain leaky bucket and token bucket algorithm [8]  
b) Discuss the design issues of the network layer. [8]  
Q3 a) For a Given class B network 150.160.0.0 with default subnet mask, [8]  
How can you divide it into 8 equal subnets? How many hosts can be  
Accommodated in each sub-network?  
b) Explain Border gateway protocol with message format. [8]

**OR**

- Q4 a) What is supernet. Explain it with suitable example. [8]  
b) Explain packet format of both ARP and RARP. [8]  
Q5 a) Explain TCP with its header format [9]  
b) What is a Socket? Explain various socket primitives used in client-server interaction [9]

**OR**

- Q6 a) How will you differentiate a stream socket from a raw socket? [9]  
How data transmissions happen in a datagram mode?  
b) Explain TCP congestion control in detail. [9]

## **SECTION-II**

- Q7    a) Explain SNMP model with its components [8]  
      b) List and describe all the messages types used in SNMP. [8]

**OR**

- Q8    a) Explain what is static, dynamic and active pages. Give one real [8]  
      Example of each one.  
      b) Explain POP3 with its features and limitations. [8]
- Q9    a) What do you mean by the integrated services? Explain with suitable [8]  
      Example.  
      b) Explain H.323 architectural model [8]

**OR**

- Q10   a) Explain the RTSP protocol. Why this protocol is needed. [8]  
      b) Explain Session Initiation Protocol with respect to following [8]  
          points: i) SIP addresses    ii) SIP message
- Q11   a) Explain 802.11 architecture. [9]  
      b) Explain Bluetooth features and architecture with suitable diagram. [9]

**OR**

- Q12   a) Explain ATM cell format in detail. [9]  
      b) Write a detailed note on WLAN. [9]