B.E. Seventh Semester (Computer Science & Engineering) (C.B.S.)

Elective - I : TCP & IP

P. Pages : 2 **NKT/KS/17/7489**

Time : Three Hours * 0 1 1 5 * Max. Marks : 80

Notes :
1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What do you mean by Internet standards? Explain in detail. **5**

b) What is RFC? Draw and explain various maturity levels of RFC. **5**

c) What are the different connecting devices? At which layer they work. **3**

OR

2. a) Give a classification of LAN and WAN in detail. **7**

b) Find the netid and hostid of the following IP-Addresses: **6**

i) 114.34.2.8 ii) 132.56.8.6

iii) 208.34.54.12

3. a) An organization is granted a block of addresses with the beginning address 14.24.74.0/24, the organization needs to have 3-subblock of addresses to use in its three subnets as follows: **8**

i) One Subblock of 120 Addresses.

ii) One Subblock of 60 Addresses.

iii) One Subblock of 10 Addresses.
Design subnet and draw network diagram.

b) Draw and explain ARP packet format. **6**

OR

4. a) Explain Error-Reporting message of ICMP. **7**

b) Explain DHCP packet format. **7**

5. a) Differentiate working of RIP, OSPF and BGP routing protocol. **6**

	b)	Explain in detail IGMP. operation.	**7**

OR

6.	a)	Why do we need TCP and UDP as two separate protocols at transport lager.	**3**
	b)	Explain distance vector routing Protocol in detail.	**6**
	c)	TCP is connection oriented protocol which uses the services of IP which is connectionless protocol? Justify your answer.	**4**
7.	a)	Explain the services provided by TCP.	**6**
	b)	Explain in detail about TCP timers.	**7**

OR

8.	a)	Explain how flow control and error control is implemented by TCP.	**5**
	b)	Explain three way Handshaking with neat sketch.	**8**
9.	a)	Explain drawback of traditional IP forwarding with benefits of MPLS.	**7**
	b)	Explain IP-traffic engineering.	**7**

OR

10.	a)	Draw and explain MPLS label format.	**7**
	b)	Explain limitations of traffic engineering and future development in detail.	**7**
11.	a)	Explain two modes of IPSEC operation.	**8**
	b)	Explain IPV6 packet format.	**5**

OR

12.	a)	Compare ICMPV4 and ICMPV6.	**5**
	b)	Explain transition from IP_V4 to IP_V6.	**8**

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