B.E. (Computer Engineering) Fifth Semester (C.B.S.)

# TCP / IP and Internet

P. Pages : 2 **NRJ/KW/17/4501**

Time : Three Hours * 0 4 2 4 * Max. Marks : 80

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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. Assume suitable data whenever necessary.
10. Diagrams and chemical equations should be given whenever necessary.
11. Illustrate your answers whenever necessary with the help of neat sketches.
12. Use of non programmable calculator is permitted.

**1.** a) Explain different connecting devices Also mention the layer of OSI model in which the device operate. **7**

b) What is RFC? Draw and define various maturity levels of RFC. **6**

**OR**

**2.** a) Compare OSI model with TCP/IP model. **6**

b) Compare wired LAN and wireless LAN. **7**

**3.** a) State different types of addresses and explain with reference to layer of TCP/IP. **7**

b) Explain the various packed forwarding technique used by IP. **6**

**OR**

**4.** a) In a block of addresses the IP-address of one of the host is 179.44.82. 13/26 What is the first address and Last address in this block. **7**

b) What is subnet mask? Classify the following IP address. **6**

i) 192.168.23.2 ii) 223.128.4.1

iii) 127.0.0.0 iv) 90.3.2.1

**5.** a) Draw and explain fields in RIP message format. **6**

b) Explain distance vector routing in detail. **8**

**OR**

**6.** a) Compare OSPF and BGP routing protocol. **6**

b) Explain following query messages used by ICMP. **8**
i) Echo request and reply
ii) Timestamp request and reply.

**7.** a) Write a short note on mobile – IP. **6**

b) Explain in detail IGMP operation. **8**

**OR**

**8.** a) Write a short note **any three.**

1) DVMRP **3**

2) SBR **4**

3) CBT **4**

4) MOSPF **3**

**9.** a) Explain about the services provided by TCP. **6**

b) Explain about TCP Timers in detail. **7**

**OR**

**10.** a) Explain how flow control and error control is implemented by TCP. **7**

b) Explain TCP segment format in detail. **6**

**11.** a) Compare FTP with TFTP Describe how FTP works. **7**

b) Explain HTTP messages. **6**

**OR**

**12.** a) Explain the transition diagram of DHCP. **6**

b) Write short note **any two.** **7**
i) MIME
ii) SMTP
iii) $POP_3$

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