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

Elective-I : TCP & IP

P. Pages : 2 **NIR/KW/18/3573**

Time : Three Hours * 1 9 1 1 * 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. Assume suitable data whenever necessary.

1. a) What is RFC? Draw and explain various maturity levels of RFC. **7**

b) What are the different connecting devices? At which layer they work? **6**

OR

2. a) What do you mean by internet standards? Explain in detail. **6**

b) Explain the difference between TCP/IP and OSI model. **7**

3. a) Classify the following IP address. **4**

i) 90.12.54.34 ii) 208.8.6.14

iii) 129.8.2.34 iv) 242.14.2.34

b) Find the class of each address **4**

i)	11000010	10000011	11101111	11111111
ii)	00000001	00001011	00001011	11101111
iii)	11110011	10011011	11111011	00001111
iv)	11100011	10011011	111111110	00001100

c) Find the continuous masking in each case. **6**

i) 1024 subnets in class A.

ii) 256 subnets in class C

iii) 32 subnets in class C

iv) 4 subnets in class B

OR

4. a) In a block of addresses, the IP address of the host is 167.199.170.82/27. Find the no. of addresses in network, the first address and last address. **7**

b) Draw and explain in detail ARP packet format. **7**

5. a) Explain the various error – reporting messages of ICMP. **7**

b) Explain IP headers (IP Datagram) format in detail. **6**

OR

6. Write a note on **any two.** **13**

i) Forwarding Techniques.

ii) Checksum calculation of IP datagram.

iii) OSPF with types of links.

iv) BGP

7. a) What are different TCP services? Explain in detail. **6**

b) What are the different types of TCP timers? Explain in brief. **7**

OR

8. a) Draw and explain TCP transition state diagram in detail. **8**

b) Define flow control and explain how it is implemented in TCP. **5**

9. a) What is MPLS? How does MPLS works. **7**

b) Explain three – way handshaking in detail. **6**

OR

10. a) What are different types of signalling protocols? What is the purpose of signalling protocols. **5**

b) Write a note on **any two.** **8**

i) ECMP ii) SBR

iii) LDP – HELLO Message

11. a) Explain about IPsec internet security protocol with their header format. **7**

b) Explain the various transition (interoperation) methods from IPv4 to IPv6. **7**

OR

12. Write in brief about **any three.** **14**

i) QoS

ii) Auto configuration.

iii) Modes of IPsec operation.

iv) Comparison IPv4 Vs IPv6.

v) ICMPv6

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All our dreams can come true if we have the courage to pursue them.

~ Walt Disney