

13/10/12

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ROLL NO.

**B.E./B.TECH (FULL TIME) DEGREE ARREAR EXAMINATIONS, NOVEMBER/DECEMBER 2012**  
**ELECTRONICS AND COMMUNICATION ENGINEERING BRANCH**  
**SIXTH SEMESTER REGULATIONS: R-2008**  
**EC 9353 – COMMUNICATION NETWORKS**

**Time: 3 Hours**

**Answer ALL Questions**

**Max.Marks: 100**

**Part-A (10x2=20 Marks)**

1. What is the importance of layering of protocols?
2. Assume 12 devices are arranged in a mesh topology? How many labels are needed? How many ports are needed for each devices? and also specify the advantages of mesh networks.
3. What is CRC? Mention the advantages?
4. Compare the merits and demerits of IEEE standards 802.4 and 802.5.
5. What is the difference between polling and selecting?
6. A sliding window protocol uses a window of size 15. How many bits are needed to define the sequence number?
7. What is a proxy server? and How it is related to HTTP?
8. Compare the features of TCP, UDP and SCTP?
9. How many cross points are needed if we use a cross bar switch to connect 1000 telephones in small town?
10. Why do we employ combination switching schemes such as TST?

**Part-B (5x16=80 Marks)**

- 11.(i) Describe the functions of each layer in ISO-OSI model for open system inter connection. (12)  
(ii) List the applications of ATM and SONET? (4)

- 12.(a) Explain in detail about various random access protocols adopted in computer networks. (16)

**OR**

- 12.(b) Explain in detail about point to point protocol with neat sketch. (16)

- 13.(a) Describe in detail about the following internet protocols:
1. ICMP (6)
  2. IGMP (6)
  3. VPN (4)

**OR**

- 13.(b) With suitable examples explain the following network routing algorithms:
1. OSPF (8)
  2. Bellman Ford (8)

- 14.(a) Explain the architecture and working principle of application protocols for WWW and TELNET? (8+8)

**OR**

- 14.(b) With necessary diagrams describe the network management protocol SNMP? (16)

- 15.(a) Explain the SDS and TDS switching techniques and also compare the merits and demerits of both the techniques. (16)

**OR**

- 15.(b) Explain with architecture of Digital Cross Connect System. (16)
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