

Code No: 07A6EC08

**R07**

**Set No. 2**

III B.Tech II Semester Examinations, December 2010

**COMPUTER NETWORKS**

Common to Information Technology, Electronics And Computer Engineering, Computer Science And Engineering, Computer Science And Systems Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. (a) Explain the home applications of computer networks?  
(b) Compare LAN, MAN and WAN.  
(c) "Bad Technology" is also a problem for OSI reference model. Justify. [4+6+6]
2. (a) Explain shortest path routing in detail  
(b) What is routing? Explain two major classes of routing algorithms? [8+8]
3. Explain the following :  
(a) MACA protocol  
(b) Fast Ethernet. [8+8]
4. (a) Television channels are 6MHz wide. How many bits/sec can be sent if four level digital signals are used? Assume a noiseless channel.  
(b) How does a virtual circuit differ from a physical circuit? What advantages would a virtual circuit provide? [8+8]
5. (a) What are the different types of errors? Also discuss at least two methods for error detection and correction.  
(b) Discuss the services provided by the data link layer to the network layer? [8+8]
6. (a) Explain the ATM addressing with suitable example.  
(b) Give TCP header format and explain. [8+8]
7. What are the two categories of cryptography methods? What is the main difference between two categories? Explain each one of them with examples. [16]
8. Explain the attributes of flow characteristics and explain any two types of the traffic shaping techniques to improve QOS? [16]

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