

**B. TECH. IN COMPUTER SCIENCE AND  
ENGINEERING  
(BTCSVI)**

**Term-End Examination**

**December, 2013**

**BICS-017 : COMPUTER NETWORKS**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any seven questions. All questions carry equal marks.*

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1. (a) What do you mean by Network Protocol ? 2  
(b) Explain OSI reference model. 5  
(c) How can you compare LAN and WAN ? 3
  
2. (a) Define the term socket. List the types of socket. 6  
(b) What is the difference between IP Addresses and Port Number ? 4
  
3. What do you mean by congestion control ? 2+8  
Explain Leaky Bucket algorithm and Token bucket Algorithm.
  
4. A computer on a 6-mpbs Network is regulated by token bucket. Token bucket is filled at a rate of 1 mbps. It is initially filled to a capacity with 8-megabits. How long can computer transmit at the full 6 mbps ? 10

5. (a) What is meant by multicast routing ? Explain. 5  
(b) Write a short note on IP. 5
6. Discuss the following : 4x2.5=10  
(a) Hubs  
(b) Switches  
(c) Bridges  
(d) Gateway
7. What do you mean by an Ethernet ? Explain 802.3 cabling in details. 2+8
8. (a) Explain about the frame format of PPP. 5  
(b) Explain the stop and wait protocol. 5
9. How are multimedia applications classified ? Explain in detail. 10
10. Write short notes on the following (any two) : 5x2=10  
(a) Cryptography.  
(b) Network Management Activities.  
(c) TCP.
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