

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

00396

Term-End Examination

December, 2014

BICS-017 : COMPUTER NETWORKS

Time : 3 hours

Maximum Marks : 70

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

1. (a) Explain the concept of Networks and types of Computer Networks. 5
(b) Distinguish between OSI Reference models and TCP/IP models. 5
2. (a) What is the relationship between services and protocols ? Explain. 5
(b) Explain the elements of Application layer. 5
3. Explain the advantage of using UDP over TCP and describe the layout of a TCP segment. How is flow control handled in TCP ? 7+3
4. What do you mean by mobility ? Explain error detection and correction in detail. 3+7
5. (a) What is the difference between congestion control and flow control ? 5
(b) Give an efficient algorithm for finding the shortest path between all pairs of nodes in a tree. 5

6. (a) Explain about fragmentation in IP. 4
(b) Compare IPv4 and IPv6. 6
7. Define the following : $4 \times 2 \frac{1}{2}$
(a) Hubs
(b) Bridges
(c) Switches
(d) Ethernet
8. What is Integrity ? Briefly explain network management activities. 3+7
9. (a) Define cryptography. Distinguish between Symmetric and Asymmetric key cryptography. 5
(b) Define RSA Algorithm for public key cryptography. 5
10. Write short notes on any *two* of the following : 5+5
(a) Multimedia Networking
(b) ATM
(c) ARP
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