MASTER OF BUSINESS ADMINISTRATION
CENTUM

00888

Term-End Examination
December, 2011

MCTE-022 : VOICE OVER INTERNET PROTOCOL

Time : 3 hours   *Maximum Marks : 100*

Note : *Answer **any five** questions. All questions carry **equal** marks.*

1.   Explain the advantages and disadvantages of **20** using VOIP.

2.   List and specify the use of hardware devices **20** required for implementing VOIP.

3.   What is a process of VOIP call establishment and **20** call termination ? Explain using a network architecture diagram.

4.   (a)   Differentiate between Real Time and Non - **10** Real Time networks using an example for each.

     (b)   Explain why Voice over IP is better than **10** Voice over Frame Relay ?

5. What are the main QoS issues in implementation   **20**
of VOIP ? Explain, how these issues can be
addressed to ensure best - effort delivery of
packets ?

6. (a) Why number portability is required in VOIP   **10**
implementation ? Also, explain the Least
Cost Routing System used in VOIP.

(b) Compare and contrast between IP phone,   **10**
Mobile VOIP and software VOIP.

7. (a) Explain the main security attacks on VOIP   **15**
systems. Explain the security protocols
available at IP layer to ensure the packet
security.

(b) Explain the VOIP Enhanced 911 (E911)   **5**
system.

8. Explain the following with illustration, example
or diagram as needed :   **5x4=20**

(a) Secure Real Time Transport Protocol

(b) Session Border Controller

(c) H. 323

(d) Virtual Circuit