

**Uka Tarsadia University**



**B.Com (Computer Applications)**

**Network Technology (030100406)**

**4<sup>th</sup> Semester**

**Effective from January-2013**

# Uka Tarsadia University

## Network Technology (030100406)

**B.Com (Computer Applications) (Sem.-4) Syllabus, effective from January-2013**

**Course Objective and Outcome:** To familiarize students with basics concepts and techniques of computer network.

**Total Hours: 52**

**[4 hrs. per week]**

### **Unit-1 Introduction to Network**

**[Weightage 25%]**

- 1.1. Introduction Networking, Advantage of Networking, Disadvantage of Networking
- 1.2. Fundamental Network Classification
- 1.3. Types of Networks
- 1.4. Server Types
- 1.5. Network Topologies

### **Unit-2 The OSI Model**

**[Weightage 25%]**

- 2.1. Introduction OSI Model
- 2.2. OSI Model Lower Layer Function- Physical Layer, Data Link Layer
- 2.3. OSI Model Middle Layer Function- Network Layer, Transport Layer
- 2.4. OSI Model Upper Layer Function- Session Layer, Presentation Layer, Application Layer
- 2.5. Protocol Function
- 2.6. Networking Standards Organizations and IEEE Networking Specifications

### **Unit-3 Transmission Media**

**[Weightage 25%]**

- 3.1. Introduction to Network Cabling and Transmission Media
- 3.2. Guided and Unguided Transmission Media
- 3.3. Installing Cable and Wireless LAN's
- 3.4. Components of Network
- 3.5. Wireless Network

### **Unit-4 Managing Network Connections**

**[Weightage 25%]**

- 4.1. IP Addressing
- 4.2. Internet Control Message Protocol (ICMP), Address Resolution Protocol, Reverse Address Resolution Protocol (RARP)

- 4.3. IP Masquerading, Domain Name Service
- 4.4. Virtual Private Network, Dynamic Host Configuration Protocol (DHCP), Internet Group Management Protocol (IGMP), Simple Mail Transfer Protocol (SMTP), Simple Network Management Protocol (SNMP)

**Text Book:**

- 1. Sonal Shah. *Computer Networks an Introduction*. Benison Education.

**Reference Books:**

- 1. Andrew S. Tanenbaum. *Computer Networks*. Prentice Hall.
- 2. Larry L. Peterson and Bruce S. Davie. *Computer Networks A System Approach*. Morgan Kaufmann Publishers.