### **COMPUTER NETWORK SYLLABUS FOR CET 1**

### UNIT 1

#### Introduction

Uses of Computer Networks, Personal Area Network, Local Area Networks, Metropolitan Area Networks, Wide Area Networks, Internetworks, Network software, protocol hierarchies, Design issues for the layers, connection oriented vs. Connectionless service, service primitives, relationship of services in protocols, Reference Models, Open System Interconnection (OSI), TCP/IP Reference models

## UNIT 2

# **Application Layer**

Domain name system, need for DNS, DNS cache, DNS Query Resolution, Generic and Country specific domains, domains and sub-domains, Need for Hierarchical and Distributed

DNS database, DNS resource records, Electronic Mail, Email message format, User Agent, Message Transfer Agent, Message Access agent, SMTP, POP3, IMAP protocols, Web Mail and Non Web mail, HTTP, Persistent and Non persistent HTTP, HTTP message format, Relationship between HTTP, HTML, URL, Web Server,

#### UNIT-3

## **Data Link Layer**

Design issues, Error detection and correction: Single bit even parity method, CRC, checksum, Block Parity, Hamming Code. Elementary data link protocols: a simplex stop and wait protocol for an error-free channel, Sliding Window protocols