Information and Communication Technology
Semester-1
FSICT-101
(Effective from June-2010)
Detailed Syllabus

Unit 1

Components of a Computer System

1. Computer hardware and Software
2. Difference between hardware and software
3. Main components of a general purpose computer: CPU, main internal memory (including RAM and ROM), input devices, output devices and secondary/backing storage.
4. Basics of Windows operating systems: Nature and Function of OS, Basic Commands

Unit 2

Input and Output Devices

1. Input Devices: keyboards, numeric keypads, Pointing devices(mouse, touchpad), remote control, joysticks, touch screen, magnetic strip readers, chip readers, scanners, digital cameras, microphones, sensor, barcode reader, webcam, video camera etc.
2. Output Devices: Monitors(CRT, TFT, LCD), projectors, printers(laser, desk jet, dot matrix), plotters, speakers.
3. Uses of output devices stating the advantage and disadvantage of each.

Unit 3

Storage Devices

1. Common backing storage media (including CD and DVD (Rs and RWs), floppy disc, hard disc, memory sticks/pen drives, flash memory cards etc.
2. Comparative advantages and disadvantages of using different backing storage media.
3. Importance and need of backup
4. Difference between main/internal memory and backing storage: relative benefits of each in terms of speed and permanence.

Data Types

1. Data Types : logical/Boolean, alphanumerical/text, numeric (real and integer), date
2. File, record, field and key field.

Unit 4

Computer Networks

1. Modem and its purpose
2. Difference between analog data and digital data
3. Need for conversion between analog and digital data
4. Advantage and disadvantages of using common network environment such as internet
5. User id and password: Purpose and Use
6. Methods of communication such as fax, e-mail, bulletin boards and tele/video conferencing
7. Difference between Local Area Network (LAN), Wireless Local Area Network and Wide Area Network (WAN)
8. Network topologies like star, ring, bus and hybrid
9. The internet and intranets: Characteristics and purpose
10. Issues of confidentiality and data security surrounding common network environments
11. Encryption and authentication techniques.