CLUSTER UNIVERSITY SRINAGAR

INFORMATION TECHNOLOGY
Semester - I
(Credits: Theory-4, Practicals-2)

THEORY

UNIT-I: Information Technology and Computers: Data, information, information technology Computer system, characteristics of computer, Evolution of Computers, Classification, Application of computers

Central Processing Unit: ALU, Control Unit, Register

UNIT-II

Hardware

Input devices: Keyboard, Mouse, Joy Stick, Digitizing Tablet, Light Pen, Touch Screen, Track Ball, Microphone, Scanner, MICR, OCR, OMR, Barcode Reader, Webcam, Digital Camera Point of Scale, Touch Pad, Smart Card

Output devices: VDU, Printers - Dot Matrix, Laser and Inkjet, Plotters.

Memory: Primary-RAM, ROM, PROM, EPROM, EEPROM, Cache, Registers;

Secondary-Hard disk, Optical Disk, Blue Ray Disc, Pen drive, Memory cards

UNIT-III: Operating System and Networking Operating system: introduction, functions of operating system, evolution of operating system, types of operating system (batch processing, multiprogramming, multiprocessing, time sharing, real time) single user operating system, multi user operating system

Networking: introduction, communication, sender, receiver, message, medium (guided, Unguided)

Modes of communication: simplex, half duplex, full duplex

Types of network: LAN, MAN, WAN, Internet, intranet Software: introduction Types of **Software** System Software, Application Software, Firmware

Virus: Types and control measures

Basic Techniques to build software, Flowcharts, algorithms, pseudo-code

Unit IV: **Number System and Data Information Concepts:** Positional Number System: Decimal, Binary, Octal, Hexadecimal, conversion from one Number system to another.

Computer Codes: BCD, EBCDIC, ASCII, UNICODE, Gray Code.

Basic logic gates: AND, OR, NOT, NAND, NOR

SUGGESTED READING:

1. Peter Nortorn's "Introduction to Computer", TMH,2004, ISBN-0-07-05-3142-0
2. Chetan Shrivastava "Fundamentals of Information Technology", Kalyani publishers, 2002,
3. Dr Madhulika Jain, "Information Technology Concept", BPB, 2006, ISBN - 8l-7656-276-9
4. Alexis and Mathews Leon, "Fundamentals of Information Technology", Leon Press, ISBN
5. "Computer Fundamentals" by P.K. Sinha
6. "Fundamentals of Computers",3rd Edition V. Rajaraman

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PRACTICALS

1. Introduction to Windows

   a. Turning on and off a comPuter
   b. Login and logoff
   c. Restart, sleep, booting
   d. Desktop, Desktop icons (My Computer, Recycle Bin, My Network etc)
   e. Opening, closing, minimizing, maximizing a window
   f. Creating a folder
2. Microsoft office
   a. MS Word
      i. Creating a new document, saving, opening, closing etc.
      ii. Menu bar (fi1e, edit, page setup etc.)
   b. MS Excel
      i' Creating a new sheet/workbook, saving, opening' closing etc.
      ii. Basic excel functions
   c. MS PowerPoint
      i. Creating a new slide, saving, opening, closing etc.
      ii. Slide design and animation
      iii. Slide show
      iv. Adding images, charts etc. to a slide

SUGGESTED READING

1. Microsoft Office 2010 Paperback - 2013 by Bittu Kumar
2. Professor Teaches Office 2010
3. Office 2010 in Simple Steps by Kogent Learning Solutions lnc