# V SEM BA ENGLISH

# CALICUT UNIVERSITY

# equipping with excellence **INFORMATICS 2017 ADMISSION** Prepared by GA COLLEGE OF GLOBAL ST Assistant Professor Department of English

#### SYLLABUS

#### **EN5B4 INFORMATICS**

NO. OF CONTACT HOURS - 90(5 hrs/wk)

NO. OF CREDITS - 4

Internal – 20, External – 80

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Examination- 3 hrs

#### AIMS OF THE COURSE

• This course introduces students to all the different aspects of Information Technology and Computers that an educated citizen of the modern world may be expected to know of and use in daily life. The topics in the syllabus are to be presented as much as possible with a practical orientation so that the student is given a perspective that will help him to use and master technology.

#### **OBJECTIVES OF THE COURSE**

Upon completion of the course:

• The student will have a thorough general awareness of Computer hardware and software from a practical perspective. • The student will have good practical skill in performing common basic tasks with the computer

# **MODULE I: GENERAL INTRODUCTION**

Outline history of the development of computers - Types of computers- PC/ Workstations – Laptops – Palmtops - Mobile Devices – Notebooks - Mainframes – Supercomputers -Significance of IT and the Internet.

# MODULE II: INTRODUCTION TO BASIC HARDWARE

Monitor - CRT and LCD – issues - CPU-mouse-keyboard-processor types - Ports - USB 2.0 - Input-output devices - Printers-scanners-graphic tabletthumb drive- modems-digital cameras-microphones-speakers. Bluetooth devices.

#### MODULE III: INTRODUCTION TO SOFTWARE

Topics: Operating Systems - Windows- Windows versions- Linux – Linux distributions- Free software- software licenses - Software Tools (applications) - Windows software tools- Word, PowerPoint, Excel - Linux tools - Open Office, etc. Security issues- viruses - antivirus tools.

# MODULE IV: INTRODUCTION TO NETWORKING AND THE INTERNET

What is Networking - LAN- WAN- Wireless networks - Benefits of Networking- file sharingsharing of printers- examples - networking in an office- in an internet café. The Internet- HTMLwebsites – blogs - search engines- e-mail- chat- wikis- social networking- Security issues-Hacking Phishing etc.

# **MODULE V: KNOWLEDGE RESOURCES ON THE INTERNET**

Encyclopedias – libraries - book sites – journals - content repositories - online education - other information sites - internet directories - other information sources - websites of universities and research institutions - Online courses and Virtual Universities.

# MODULE VI: COMPUTER LOCALIZATION

What is localization - using computers in the local languages in India - language packs for operating systems and programs - fonts –Unicode - ASCII - keyboard layout issues - software tools for typing local languages - TDIL project.

# Module 1- General Introduction

# **Development of computers**

- 1820s Charles Babbage brought the idea that information could be stored in a machine.
- Developed Difference engine and Analytical engine.
- First electronic computer ENIAC (Electronic Numeric Integrator and Calculator) by Eckert and John Mauchly.

BALS

- Used only for mathematical operations.
- Generations of Computers
- First Generation Computers (1949-1955)

Eg: ENIAC, EDVAC, EDSAC, Mark I, UNIVAC.

• Second Generation Computers (1957-1965)

Eg : IBM 1401, IBM 7094, CDC 3600, UNIVAC 1108.

• Third Generation Computers (1966-1975)

Eg : PDP-1 (Programmed Data Processor -1)

• Fourth Generation Computers (1975-1985)

Eg: ALTAIR 8800

• Fifth Generation Computers (1985 - Present)

Many changes occured both in size & in speed.

# **Types of Computers**

- Personal Computers (PC)
- Work Station
- Desktop PC
- Nettop PC
- Laptop PC
- Notebook PC
- Tablet PC
- Mobile Devices
- Personal Digital Assistant (PDA)
- Pocket PC
- Mainframe Computers
- Computers during 1960's and 70's
- Super Computers
- Fastest Computers
- Used in research, space, military & governmental applications.

# Module 2: Introduction to Basic Hardware

- Hardware Physical parts of the computer. Eg : CPU, discs, tapes, modem, cables etc.
- CPU: brain of computer. Also called micro processor or Central processor.

Or

# **Components of CPU**

- Control Unit
- ALU
- RAM Random Access Memory.

Input Devices - Keyboard, mouse, trackball, joystic, gamepad etc

- Key board, mouse, optical mouse, trackball etc.
- Graphic Tablet Allows to draw images and graphics. Also known as digitising tablet.
- Scanner Device that optically scans images.

#### Three types of scanners

- Drum scanner
- Flatbed scanner
  Hand scanner

# **Output Devices**

- Monitor CRT & LCD
- Speaker
- Printers Impact & Non Impact Printers.
- Impact Printers Dot Matrix, Daisy Wheel & Line Printers.
- Non Impact Printers Laser & LED Printer.
- Flash Drive Memory chip that can be rewritten and hold its content without power.
- Modem: Modulator-Demodulator
- A device that modulates an analog carrier signal to encode digital information.

# Module 3 : Introduction to Software

• Soft ware : A set of instructions for the computer.

# Two categories of software

• System Software- Made up of programs like operating system & database management system.

OBALS

• Application Software- Program that process data for the uses.

# **Basic functions of OS**

- User interface
- Data management
- Device management
- Securiry
- Windows Widely used OS. Helps to share files & applications with each other if the PCs are connected to a network.
- Free software
- Richard Stallman defines free software as a matter of liberty not price.

• Linux - Linus Torvald invented Linux. A version of UNIX that runs on a variety of platforms including Alpha, Power PC etc.

# **Security Issues**

- Malware
- Computer virus
- Worms
  Trojan horse
- Antivirus used to prevent, detect & remove viruses from Computers.
- Eg: Avast, Avira, Norton
- Cryptography A method of protecting information from being destroyed.

# Module 4 Introduction to Networking

Computer Networks - A collection of computers and devices connected by channels to share resources among users

#### **Types of Networks**

- PAN, LAN, CAN, MAN, WAN, GAN
- Wireless Networks Two or more computers communicating using standard network rules or protocols but without cabling to connect Computers.
- Internet Global system of interconnected networks.
- Internet Access services Dial-Up, ISDN, DSL, Cable etc
- Internet services HTML, WWW, Web Browsers, Web serch Engine, E Mail
- Electronic Mail for messaging.
- Netiquette Set of rules governing correct behavior on internet.
- Blog
- Types of Blogs Personal, Corporate and Organisational, By Genre, By media Type.

OBAL

- Social Network
- It's problems and Benifits.
- Security Issues Hacking, Phishing etc

# Module 5 : Knowledge Resources on Net

- Encyclopedia A compendium holding information from all branches of knowledge.
- Types General or subject specific.

One or multi volume works. Be in electronic format.

- Libraries Library is a collection of books.
- Types of libraries- Academic, public, research, school and special libraries.
- Digital Library high speed optical fiber are used for LAN and the access is over WAN.
- Advantages of digital library no physical boundary, round the clock availability, multiple accesses, structured approach, preservation and conservation, space, cost etc
- Disadvantages of digital library copy right, speed of access, band width, efficiency, initial cost is high, environment, preservation.
- Online bookstores These bookstores allow either the order of paper copies of books or a downloadable version.
- Advantages of online bookstores Convenience, more variety, used books, cheaper, feedback, E-books.
- Disadvantages of online bookstores- Instant gratification, browsing, damaged book.
- Content Repositories It functions as a web based service that allows users to upload and share Duffy types of content.
- Eg: digital images, photographs, video files, documents such as blog etc.

# Module 6 - COMPUTER LOCALIZATION

- Localization The process of adapting software for a particular country or region.
- Benefits of Localization
  - a) Achieving equal opportunity for all languages
  - b) Services become interactive and transparent.
  - c) E-Governance is made possible
- Globalization The process of first enabling a product to be localized and then localizing it for deferent national audiences.
- Indic Computing Computing in Indic i.e. Indian scripts and Languages.
- TDIL Technology Development for Indian Languages
- C-DAC Software Company involved in developing language related software.
- Tools for typing local languages LISM, NASHIR, ISM, CHITRANKAN
- Unicode Universal character encoding standard. It provides the capacity to encode all the characters used for the written languages of the world.
- Character the symbolic representation of an element of a writing system letter, symbol or number.
- Glyph the shapes by which characters r represented.
- Font collection of glyphs
- ASCII American Standard Code for Information Interchange. Most common format used for encoding text files in computers.
- Major projects of C-DIT Kerala Akshramala, Nila, Kaveri

