

# DEPARTMENT OF COMMERCE (SF)

## HENRY BAKER COLLEGE MELUKAVU

### CERTIFICATE PROGRAMME

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Programme Code : HBC/COM/CP03/2019-20

Title of the Programme: **Fundamentals of Computer System**

Name of the Faculty in Charge : **Ms. Ans Mariya Jose**

Instructional Hours : **30**

### SYLLABUS

(100% Theory)

#### Learning Objectives:

- 1. Introduce the fundamentals of computing devices and reinforce computer vocabulary, particularly with respect to personal use of computer hardware and software, the Internet, networking and mobile computing.*
- 2. Give students an in-depth understanding of why computers are essential components in business, education and society.*

**Module-1:** Evolution of the computing machine-Abacus –Napers bones- Pascaline- Leibniz calculator- Jacquard's loom- difference engine- Analytical engine- Hollerith's machine

**(6 Hrs.)**

**Module-2:** Generations of computers- First Generations of computers (1940-1956)- Second Generations of computers (1956-1963)- Third Generations of computers (1969-1971)-Fourth Generations of Computer (1971-present)-Fifth Generations of computers (Present beyond).

**(6 Hrs.)**

**Module-3:** Types of computers- Desktop computers-Work stations- note book computers- Tablet computers- Hand held computers- Smart phones.

**(1 Hrs.)**

**Module-4:** Functional units of a computer- Input unit-storage Unit- CPU-Output **(1 Hrs.)**

**Module-5:** Hardware- Processors- motherboard- Peripherals and parts- Memory- Primary- ROM- RAM- secondary or auxiliary storage- Magnetic storage devises- Optical storage devises- Conductor storage

**(6 Hrs.)**

**Module-6** Input/ output devices- Keyboard- mouse- Light-Pen- Touch screen- Graphic tablet- Joystick- Microphone-scanner- Mark reader- Barcode/ QR Code reader-MICR reader- Biometric sensor-smart card reader- Digital camera output devices- LCD-Printer –plotter- 3D Printer.

**(5 Hrs.)**

**Module-7:** Software-OS-Process management-memory management-file management- device management- Application software.

**(2 Hrs.)**

**Module-8:** Cyber Crimes against individuals- Identity hurt- Harassment- impersonation and cheating- Violation of privacy- cyber-crimes against property- Credit card fraud- Intellectual property theft- Internet time theft- Cybercrimes against Government- Cyber terrorism- website defacement- Attack against e-government website

**(3 Hrs.)**

#### Reference:

1. Computer Fundamentals” by P K Sinha
2. Computer Fundamentals: Architecture & Organization Ram, B. 4th ed New Age
3. Computer Networks & Internets: With Internet Applications Comer, Douglas 4th ed Pearson