COMPUTER SCIENCE
CLASS VI
(Session 2025-26)

Learning Outcomes:

a) Ability to familiarise with basics of computers
b) Ability to familiarise with different types of computers
c) Ability to Operate Computers such as Stating and Shutting Down Operating System, Handling Desktop Components etc.
d) Ability to familiarise with Window Applications, such as Notepad, Paint, Calc etc.
e) Ability to familiarise with the Internal Components of a System Unit, such as Motherboard, Processor, Hard Drive, RAM, Power Supply etc.
f) Ability to familiarise with the Concept of Software and its Categories
g) Ability to familiarise with the different types of Input Devices
h) Ability to familiarise with the different types of Output Devices
i) Ability to create drawing using different tools available in the Tux Paint
j) Ability to familiarise with various basic operations related to handle files, such as creating a new file, saving a file, opening a file, Undo and Redo Operations etc.

Unit-wise Syllabus:

Theoretical Section
Unit I

Fundamentals of Computers:

- Introduction to Computers, Uses of Computers
- Applications of Computer: Education, Entertainment, Sports, Communication, Shops, Hospital, Banks, Government Offices, Travel
- Characteristics of Computer: Speed, Accuracy, Reliability, Diligence, Automation, Storage
- Portable Computing Devices: Mobile (Smart Phones), Tablet Computer, Palmtop Computer, Laptop Computer
- Limitations of Computer
- Introduction to Basic/Standard Components of a Computer System: How computer works (Input, Processing, Output)
- Block Diagram of Computer: Parts of Central Processing Unit (Memory Unit, Control Unit, Arithmetic Logical Unit (ALU))
- Types of Computer Memories: Primary Memory, Secondary Memory
- Categories of Computer: Micro Computer (Personal Computer), Mini Computer, Main Frame Computer, Super Computer

Working with Computer Systems-I:

- Operating System: Windows, DOS, Android
- Starting Computer System: Powering On, Logging In
- Desktop and Its Components: Icons (My Computer, Network, Recycle Bin, User's Files), Shortcuts, Wallpaper, Changing Wallpaper, Taskbar (Start Button, Quick launch Bar, System Tray, Notification Area, Clock, Active Programs)
- Working with Windows Applications and text editor: Notepad, WordPad, Paint, Calculator, Using Run Box, Search Box of Start Menu
- Shutting Down Computer System: Sleep, Shut Down, Log Off, Restart

Unit II

Hardware and Software Components:

- Hardware: Features of Hardware, System Unit (CPU), Motherboard (Hard Drive, Video Card, Processor, FAN, RAM slot, Power Supply, CD/DVD), Important points for taking care of Hardware
- What is Software? Definition
- Types of Software - System software, Application Software
- Difference between System Software and Application Software.
- Relationship between Hardware & Software

Input Devices & Output Devices:

- Input devices, Uses of Input Devices
- Keyboard, Different types of keys on Keyboard, Mouse and its buttons, Mouse pad, Microphone, Scanner, Web Camera, Touch Pad, Bar Code Reader, Light Pen, Joy Stick, Touch Screen, Biometric, Electronic Signature Pad
- Output Devices, Types of output devices
- Monitor (Cathode-Ray Tube (CRT), Flat- Panel Display), Printer (Dot matrix Printer, Inkjet Printer, Laser Printer), Speaker, Headphone, Plotter, Projector
- Difference between Input & Output Devices

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Practical Section
Unit-I

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Tux Paint:

- Introduction to Tux Paint, Features of Tux Paint
- Opening and Saving a file in Tux Paint
- Main Screen Interface: Left Side: Toolbar, Middle Area: Drawing Canvas, Right Side: Selector, Lower Side: Colors (Color options: Color Picker, Rainbow Palette, Color Mixer), Bottom Side: Help Area.
- Different Tools in Tux Paint (Drawing Tools: "Stamp" Tool (Rubber Stamps), "Lines" Tool, "Shapes" Tool, "Text" and "Label" Tools, "Fill" Tool, "Magic" Tool (Special Effects), "Eraser" Tool,
- Other Commands & Controls: "Undo" and "Redo" Commands, "New" Command, "Open" Command, "Save" Command, "Print" Command, "Slides" Command (under "Open"), "Quit" Command, Sound Muting

Suggested Practical List for Lab Exercises or Record File:

i.   Powering On, Logging In
ii.   Opening (Using Icons or Shortcuts) & Closing Programs
iii.   Change Wallpapers
iv.   Change Screen Savers
v.   Working with Taskbar
vi.   Opening Common Windows Applications using Run Box
vii.   Working with Calculator
viii.   Log Off, Restarting and Shutting Down Computer System
ix.   How to Start Tux Paint?
x.   Opening and Saving Files in Tux Paint
xi.   Use of Different Tools in Tux Paint: Rubber Stamps, Lines, Shapes, Text, Labels, Fill, Magic, Eraser
xii.   Working with Color Options in Tux Paint
xiii.   Use of Undo & Redo Commands
xiv.   Print Command in Tux Paint
xv.   How to Close Tux Paint