

**Paper Code:** BCADSC 1.7

**Paper Title:** Computer Fundamentals Lab

**Teaching Hours:** 3 Hrs / Week

**Marks:** Th-40+IA-10

**Credits:** 1

### **Part-I**

Students shall gain familiarity of Windows 10/Windows 8 OS- Basics of Windows, basic components of windows, icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel features, adding and removing software and hardware.

### **Part-II**

Students shall know about the various hardware components of a typical desktop computer/laptop. Identify motherboard, processor, network card, data bus, i/o devices, hard drive, hard disk, flash drive, various ports and other parts of computer.

### **Part-III**

Students shall gain familiarity with word processing software such as MS Word/Open Office. Understand various editing and formatting features, mail-merge option, encrypting the document, and inserting clipart/shapes,/hyperlink/word art. Students shall gain familiarity with spreadsheet software such as MS Excel/Open Office. Concepts of spreadsheet and other features such as, entering text, menus, insert rows/columns, formatting, formula, sort, filter. Advanced features such as graphs, library functions (Arithmetic, Date and Time, Financial, Logical, text and statistical)

### **Part-IV**

Students shall practice working in Linux Environment-Open Source OS. Student shall understand basic shell environment.

Following shall be practiced :OS boot process,Description of the basic shell commands, Basics of shell scripting, Usage of if statements in scripts, Usage of vi editor, Description of vi editor with commands, Creating new variables and echoing

### **Lab Assignments:**

**Students shall write**

#### **Section A:**

1. Description about motherboard components of computer system.
2. MS-Word assignment to draw Architecture of Linux using various shapes.
3. MS-Word assignment to demonstrate Bullets and Numbering.
4. MS-Word assignment to demonstrate header, footer, and hyperlink.
5. MS-Word assignment to design a pamphlet for the advertisement of your college features.
6. MS-Word assignment to demonstrate SmartArt and Watermark.
7. MS-Word assignment to demonstrate usage of tables and encryption.
8. MS-Word assignment to demonstrate usage of mail merge.

#### **Section B:**

1. MS-Excel assignment to demonstrate math and statistical functions.
2. MS-Excel assignment to demonstrate graphs.
3. Familiarity with bash/similar shell for executing basic shell commands such as cal, date, bc, who, ls, pwd, cd, mkdir, rmdir etc.
4. Familiarity with commands to work with file (cat, cp, rm, mv, file, wc, head, tail)
5. File ownership and permissions (chmod)
6. echo command
7. Write a shell script to read and display student name, roll number, and marks of five subjects.
8. Write a shell script to find eligibility for voting
9. Write a shell script to find maximum and minimum of three numbers.