### **I YEAR - II - SEMESTER - W.E.F.2016-17**

#### DSC3B: FUNDAMENTALS OF OPERATING SYSTEMS

**Total Marks:75** 

# **Unit -1 Introduction to Operating System**

Introduction to Operating Systems, Role (Functions) of Operating Systems, Types of Operating Systems, User Interface, Concept of Process and Running Programs by OS, Files & Folders(Organizing, Attributes, and Sharing), Managing Hardware, PC Operating System, Network (Server) Operating System, Embedded Operating Systems

# **Unit -2** Overview of Popular Operating Systems

DOS, Windows NT, Windows XP, Windows Vista, Windows 7, Windows 2000Server, Windows Server 2008, UNIX, Macintosh Operating Systems, Android,iOS

[ unit 1 & 2 from book 1]

## **Unit -3** Roles/Functions of Operating System

Multi-Processing, Fault Tolerance and Load Balancing, Overview of Data Safety(RAID), Disk Defragmentation, Backup and Recovery, Security (Concept of User and Group, Fileand Folder Permission, Firewall), Workgroups, Domains, and Active Directory, Over view of Server Roles

# **Unit -4 Introduction to Linux Operating System**

Introduction to Linux, History of Linux, Strengths and Weaknesses of LINUX, Features of Linux, LINUX Distributions, Basic Commands of Linux

#### **Unit-5 Introduction to Android**

History of Android, Design goals, Memory management, Processor management, device management, file management, security management User interface.

## **Reference Books:**

- 1. **Peter Norton**, "Introduction to Computers", TMH
- 2. Understanding Operating Systems By Ann McHoes, Ida M. Flynn
- 3. Alan Carter, "Windows 2000 MCSE Study System"
- **4. Pfaffenberger**, "Linux Commands Instant Reference", BPBPublication
- **5. Silberschatz& Galvin**, "Operating System Concepts", Wiley, 5<sup>th</sup>Ed.
- **6. Sumitabha Das**, "UNIX Concepts and Applications", THM, 4<sup>th</sup>Ed.