

**SARDAR PATEL UNIVERSITY**  
**Vallabh Vidyanagar**  
**B. B. A. (Honours) Information Technology Management Program**  
**Semester – III**  
**UM03EBBI08 Fundamentals of Operating Systems**  
**(w.e.f June 2016)**

**Total Credits: 3**

**Total Marks: 100**

**THEORY: 3 Hrs per week**

**Unit - 1 Introduction to Operating System 25%**

Hardware vs. Software, Types of Software, Introduction to Computer Resources (Memory, CPU, and I/O Devices), 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 25%**

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

**Unit - 3 Roles/Functions of Operating System 25%**

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

**Unit - 4 Introduction to Linux Operating System 25%**

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

**Evaluation:** Internal: 40 Marks

External: 60 Marks (Two – Hours Examination)

**Reference Books:**

1. **Peter Norton**, "Introduction to Computers", TMH
2. **Alan Carter**, "Windows 2000 MCSE Study System"
3. **Pfaffenberger**, "Linux Commands Instant Reference", BPB Publication
4. **Silberschatz & Galvin**, "Operating System Concepts", Wiley, 5<sup>th</sup> Ed.
5. **Sumitabha Das**, "UNIX Concepts and Applications", THM, 4<sup>th</sup> Ed.