

15IT359E	LINUX ADMINISTRATION	L	T	P	C
		2	2	0	3
<i>Co-requisite:</i>	NIL				
<i>Prerequisite:</i>	NIL				
<i>Data Book / Codes/Standards</i>	NIL				
<i>Course Category</i>	P PROFESSIONAL ELECTIVE				
<i>Course designed by</i>	Department of Information Technology				
<i>Approval</i>	32 nd Academic Council Meeting ,July 2016				

PURPOSE	To provide knowledge on various theoretical and technical aspects of Linux basics and server administration.						
INSTRUCTIONAL OBJECTIVES				STUDENT OUTCOMES			
At the end of the course, student will be able to							
1.	To Learn the basics of Linux system administrative tasks			i			
2.	To perform the Linux file systems management and various server management			k			

Session	Description of Topic	Contact hours	C-D-I-O	IOs	Reference
UNIT I: MANAGING FILES FROM COMMAND LINE		6			
1.	Linux file system hierarchy	1	C	1	2
2.	Locating files and directories by Name	1	C	1	2
3.	Linux file system default permissions and access	1	C,I	1	2
4.	Managing Linux file system permission	2	C,I	1	2
5.	Controlling new file permission and ownership	1	C,I	1	2
UNIT II: MONITORING AND MANAGING LINUX PROCESS AND LOGS		6			
6.	Linux process	1	C	1	2
7.	Controlling Jobs	1	C,I	1	2
8.	Background Process and Foreground Process	1	C,I	1	2
9.	Monitoring Process Activity	1	C,I	1	2
10.	Killing Processes	1	C,I,O	1	2
11.	Reviewing syslog files	1	C	1	2
UNIT III: MANAGING LINUX USERS		6			
12.	User creating and management commands	1	C,I,O	2	1
13.	/etc/password	1	C,I,O	2	1
14.	/etc/shadow and /etc/group	1	C,I,O	2	1
15.	Users and access permissions	2	C,I,O	2	1
16.	Modifying user and group attributed	1	C,I,O	2	1
UNIT IV: BOOTING, FILE SYSTEMS AND CORE SYSTEM SERVICES		6			
17.	Boot Loaders and init process	1	C,I	2	1
18.	Enabling and Disabling Services, booting and shutting down	1	C,I	2	1

Session	Description of Topic	Contact hours	C-D-I-O	IOs	Reference
19.	Managing file systems	2	C,I	2	1
20.	Adding new disk	1	C,I	2	1
21.	Syslog Daemon and CRON	1	C,I	2	1
UNIT V: SERVERS AND INTERNET SERVICES		6			
22.	DNS: Understanding DNS and Configuring DNS	1	C,I	1,2	1
23.	Configuring DNS Client	1	C,I	1,2	1
24.	Virtualization	1	C,I	1,2	1
25.	Setting Up Web Server: Understanding and Installing HTTP	2	C,I	1,2	1
26.	Configuring Apache	1	C,I	1,2	1
Total Contact Hours		30*			
Tutorial Hours		30			

Sl. No.	LEARNING RESOURCES
1.	Steve Shah and Wale Soyinka “Linux Administration: A Beginner’s Guide”, 4 th Edition, Tata McGraw-Hill Publishing Company Limited, New Delhi, ISBN: 978-0072262599
2.	Susan Lauber, Philip Sweany, Rudolf Kastl and George Hacker, “REDHAT System Administration-1 Student Work book”, REDHAT Inc. 2014

Course nature				Theory +Tutorial		
Assessment Method (Weightage 100%)						
In-semester	Assessment tool	Cycle test I	Cycle test II	Cycle Test III	Tutorial	Total
	Weightage	10%	10%	15%	15% [Experiments (10%) + Mini Project(5%)]	50%
End semester examination Weightage :						50%

* - Excluding Assessment Hours

Course Designed by		Department of Information Technology													
1	Students Outcome	a	b	c	d	e	f	g	h	I	j	k	l	m	n
										X		X			
2	Category	GENERAL (G)			BASIC SCIENCES (B)			ENGINEERING SCIENCES AND TECHNICAL ART (E)			PROFESSIONAL SUBJECTS (P)				
											X				
3	Broad Area(for p only)	Programming		Networking		Data base		Web System		Human Computer Interaction		Platform Technologies			
												X			
		Not Applicable													
4	Staff coordinator														