Course Code	PIT21G303J	Course Name	LINUX BASED LATEX	Course Category	D	*Discipline Elective* Course	L	T	P	C
							3	0	2	4

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	Computer Applications		Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to,	Learning
CLR-1 :	Familiarize the software lifecycle models and software development process	
CLR-2 :	Understand the various techniques for requirements, planning and managing a technology project	
CLR-3 :	Examine basic methodologies for software design, development, testing, closure and implementation	
CLR-4 :	Understand manage users expectations and the software development team	
CLR-5 :	Acquire the latest industry knowledge, tools and comply to the latest global standards for project management	

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)
CLO-1 :	Identify the process of life cycle model and process project	3	80	70
CLO-2 :	Analyze and specify software requirements through a productive working Relationship with project stakeholders	3	85	75
CLO-3 :	Design the system based on Functional Oriented and Object Oriented Approach for Software Design.	3	75	70
CLO-4 :	Develop the correct and robust code for the software products	3	85	80
CLO-5 :	Perform by applying the test plan and various testing techniques	3	85	75

Program Learning Outcomes (PLO)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Team Work	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLO-1 :	L	H	-	H	L	-	-	-	L	L	-	H	-	-	-
CLO-2 :	M	H	L	M	L	-	-	-	M	L	-	H	-	-	-
CLO-3 :	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-4 :	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-5 :	H	H	M	H	L	-	-	-	M	L	-	H	-	-	-

Duration(Hour)		15	15	15	15	15
S-1	SLO-1	Introduction to Linux	Managing services	Study of Open	Signal concepts	Sockets
	SLO-2	Features of Linux	system startup files	Close, Read, Write	signal function	Elementary TCP Sockets
S-2	SLO-1	Linux distribution-	starting	Lseek, Dup,stat	kill and raise	TCP Echo Client/ Server
	SLO-2	operating systems	service management	fstat, and lstat	alarm and pause	Elementary UDP Sockets
S-3	SLO-1	Linux-History of Linux and Unix	service scripts	function	abort and sleep	UDP Echo Client/ Serve
	SLO-2	Open source software		File Types	Pipes	
S 4-5	SLO-1	Laboratory 1 : Working with Linux Server	Laboratory 4 : Creating presentation using Beamer tool	Laboratory 7 : Create a table, Brackets and tables in Latex.	Laboratory 10 :. Creating Package	Laboratory 13 : Calculus notation in Latex Document
S-6	SLO-1	Linux Software	FTP server	File Access Permissions	FIFO	gethostbyname& gethostbyadd
	SLO-2	The shell	The FTP user account	Study of Access	System V IPC	getservbyname&
S-7	SLO-1	Shell Scripts	Running vsftpd-	Link and Unlink	Message Queue	getservbyport
	SLO-2	Programming Shell	configuring vsftpd	Functions Reading Directories	Example Program	getaddrinfo
S-8	SLO-1	Configuration	vsftpd access controls-	Time and Date Routines	Semaphores	Syslogd Daemon
	SLO-2	Shell Configuration	web servers	Adding enumerate List	Example Program	syslog function
S 9-10	SLO-1	Laboratory 2 : Practice of Commands	Laboratory 5 : Create Latex basic Document.	Laboratory 8 : Add an elements in it.	Laboratory 11 : Adding Macros	Laboratory 14 : inetd Daemon
S-11	SLO-1	Linux files	apache web server	Setjmp and	Shared Memory	Broadcast Addresses
	SLO-2	Directories	apache configuration files	Longjmp Functions	Example Program	Unicast Versus Broadcast
S-12	SLO-1	archives	apache configuration and	fork	Introduction to creating slides,	Multicast Addresses

	SLO-2	Working with Commands	directives	Vfork	adding frames,	Multicasting
S-13	SLO-1	Introduction with Latex editor	apache configuration	wait	dividing the slide	Versus Broadcasting on LAN
	SLO-2	Working with Latex Editor	Tools.	waitpid.	into multiple columns	Multicasting on WAN
S 14 -15	SLO-1	Laboratory 3 : .Adding Mathematical Symbol in Latex Editor	Laboratory 6 : Text and document formatting	Laboratory 9: Add graphics in Latex Document	Laboratory 12 : Add Different blocks in presentation	Laboratory 15 : Form a Frame

Learning Resources	1. Richard Petersen - Linux : The Complete Reference ,Sixth edition . 2. Richard Stevens .W & Stephen Rago (2005), Advanced Programming in the UNIX Environment, 2nd Edition, Pearson Education, New Delhi (UNIT I,2 & 3).	3. Richard Stevens .W (1999), UNIX Network Programming, Volume II, Prentice Hall, New Delhi (UNIT IV&5). 4. Stephen A.Rago (1993), Unix System V Network Programming, Addison Wesley, New York.

Learning Assessment											
Bloom's Level of Thinking		Continuous Learning Assessment (50% weightage)								Final Examination (50% weightage)	
		CLA – 1 (10%)		CLA – 2 (15%)		CLA – 3 (15%)		CLA – 4 (10%)#			
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
Level 1	Remember	20%	20%	15%	15%	15%	15%	15%	15%	15%	15%
	Understand										
Level 2	Apply	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Analyze										
Level 3	Evaluate	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%
	Create										
	Total	100 %		100 %		100 %		100 %		100%	

CLA – 4 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
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