Govt. Polytechnic Mandkola (Palwal)

Lesson Plan

Name of the Faculty: Rahul Kaushik

Discipline: Computer Engg.

Semester: 6th

Subject: NETWORK SECURITY

Work Load (Lecture/ Practical) per week (in hours): Lectures+Practicals- 03 +03

Week	Theory		Practical	
	Lecture day	Topic (including assignment/ test)	Practical day	Topic
1st	1st	Need for securing a network, Principles, of Security	1st	Introduction About Network Security
	2nd	Type of attacks		
	3rd	introduction to cyber crime		
2nd	4th	cyber law-IndianPerspective (IT Act 2000 and amended 2008), cyber ethics,	2nd	Introduction About Network Security and types of Attacks
	5 th	Ethical hacking. What is hacking? attacker, phreaker etc.		
	6th	TEST		
3rd	7th	Introduction to basic encryption and decryption	3rd	Installation of various antivirus software
	8th	Concept of symmetric		
	9th	asymmetric key cryptography		
4th	10th	overview of DES	4th	Comparison of various antivirus software
	11th	RSA and PGP		
	12th	Introduction to Hashing		
5th	13th	MD5, SSL, SSH.	5th	Study of various parameters of firewall.
	14th	HTTPS		
	15 th	Digital Signatures, Digital certification, IPSec		Installation and study of various parameters of firewall.
6th	16th	Revision and assignments	6th	Writing program in C to Encrypt/Decrypt using XOR key.
	17th	TEST		
	18th	Definitions, preventive measures		
7th	19th	access central, checksum verification	7th	Writing program in C to Encrypt/Decrypt using XOR key.
	20 th	Process configuration		
	21th	virus scanners		

8th	22th	heuristic scanners	8th	Revision and Problem solving
	23th	Application level virus scanners, Deploying virus protection.		
	24th	TEST		
9th	25rd	Definition and types of firewalls	9th	Study of VPN.
	26th	Firewall configuration		
	27th	Limitations of firewall.		
10th	28th	TEST	10th	Study of VPN.
	29h	Introduction; IDS limitations – teardrop attacks		
	30th	counter measures		
11th	31th	Host based IDS set up	11th	Study of various hacking tools.
	32th	**TEST**		
	33st	Handling Cyber Assets-Configuration policy as per standards		
12th	34rd	Disposable policy	12 th	Study of various hacking tools.
	35th	Revision and assignments		
	36th	TEST		
13th	37th	Basics, setting of VPN, VPN diagram	13th	Practical applications of digital signature.
	38th	configuration of required objects		
	39 th	exchanging keys, modifying security policy		
14th	40th	Disaster categories, network disasters	14th	Practical applications of digital signature.
	41th	cabling, topology, single point of failure,		
	42th	save configuration files, server disasters		
15th	43th	UPS, RAID, Clustering, Backups, server recovery	15th	Revision and Problem solving
	44th	Revision		
	45th	**TEST**		