CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
CHANDUBHAI S PATEL INSTITUTE OF TECHNOLOGY
U & P U. PATEL DEPARTMENT OF COMPUTER ENGINEERING
ACADEMIC YEAR: 2019-20

List of Experiments

Subject: Information Security (CE348) (6th Sem)

Exp. No	Name of Experiment
1	Study various phishing attacks and their countermeasures. Demonstrate the steps of DNS based phishing. **Prepare document of defining phishing in brief, types of phishing, Problems and their countermeasures.**
2	Port scanning involves connecting with TCP and UDP ports on a system, once you have found the IP addresses of a target organization by Footprinting technique. You have to map the network of this organization. Nmap is a network mapper and a power full, flexible, freely available and easy to use tool. It is available for both Linux and Windows based operating system. Study practical approach to implement Scanning and Enumeration Techniques using Nmap. **Prepare document of defining NMAP in brief, functionality of NMAP, Commands with example along with screenshots.**
3	Implement ceaser cipher and apply brute force attack to get original key.
4	Apply attacks for cryptanalysis to decrypt the original message from a given cipher text using Play fair cipher. Key = charusat
5	Implement RSA cryptosystem.
6	Implement Deffi Hellmn key exchange algorithm. Generate share secret without Sharing the secret code.
7	Implement Elgamal Cryptosystem.
8	Implement Message Integrity using SHA-256 hashing function which creates chain of three blocks. Each block contains index, timestamp, data, previous hash value and current block of hash value. Test message integrity of program by modifying one of the hash value of block.
9	Implement and Analyze DES algorithm.
10	Implement Digital Signature.
11	Study and Configure SSH to authenticate machines, generate session key and transfer files using symmetric key and asymmetric key cryptography.
12	Prepare report on any advanced cryptographic system.