

**A Synopsis
on
“ Vulnerability Assessment and Penetration
Testing ”**

BACHELOR OF ENGINEERING

IN

DEPARTMENT OF COMPUTER ENGINEERING

OF

SAVITRIBAI PHULE PUNE UNIVERSITY



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SYNOPSIS

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Title of topic :

Vulnerability assesment and Penetration Testing

Area of topic :

CyberSecurity

Cybersecurity is the practice of protecting systems, networks, and programs from digital attacks. These [cyberattacks](#) are usually aimed at accessing, changing, or destroying sensitive information; extorting money from users; or interrupting normal business processes. It is a set of techniques used to protect the integrity of networks , programs and data from attack , damage or unauthorized access .

Implementing effective cybersecurity measures is particularly challenging today because there are more devices than people, and attackers are being forced to become more creative .

Abstract :

Vulnerability assessment

Someone who provides as well as violates digital security is known as an ethical hacker and his/her activity is called ethical hacking . It is not just done like that . It involves many stages . After preliminary stages of Information gathering , scanning comes vulnerability assessment . Here data gathered from previous stages is analysed and an attack strategy created . Hacking is performed in various ways , using either botnets , malwares , ransomware , phishing attack , spyware , Distributed Denial of Service attack or a Root-kit . The method of attack depends on the purpose . Always the effort is to reward ratio should be satisfied .

Contents :

- 1) Introduction
- 2) What are vulnerabilities ?
- 3) Why do vulnerabilities exist ?
- 4) Tools used to find vulnerabilities
- 5) What is penetration testing ?
- 6) Why to perform penetration testing ?
- 7) Sample Penetration Test
- 8) Conclusion
- 9) References

Application Areas :

- 1) CybeCrime
- 2) Botnet
- 3) Malware
- 4) Phishing Attack
- 5) Spyware
- 6) DDos
- 7) Root-kits

References / Bibliography :

- 1) <https://www.krackattacks.com/>
- 2) <https://papers.mathyvanhoef.com/ccs2017.pdf>
- 3) <https://www.paloaltonetworks.com/cyberpedia/what-is-cyber-security>