

Code No: R204105K

R20

Set No. 1

IV B.Tech I Semester Regular Examinations, January– 2024

ETHICAL HACKING

(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours

Max. Marks: 70

*Answer any FIVE Questions
ONE Question from Each unit
All Questions Carry Equal Marks*

UNIT - I

- 1 a) What is hacking? What are types of hacking? Explain briefly. [7]
b) Explain phases of hacking with the help of a diagram. [7]
(OR)
- 2 a) What are different categories of penetration testing? [7]
b) Discuss the complete structure of penetrating testing report. [7]

UNIT - II

- 3 a) Define foot printing. Discuss any two foot printing tools. [7]
b) Describe various foot printing techniques used in Ethical Hacking. [7]
(OR)
- 4 a) Discuss various techniques of scanning. [7]
b) What is scanning? Discuss the three types of scanning. [7]

UNIT - III

- 5 a) Differentiate between manual password cracking and automated passwords cracking. [7]
b) Explain the process of system cracking with a neat sketch. [7]
(OR)
- 6 a) What is Trojan? Explain the working of Trojan. [7]
b) Elaborate on Trojan infection techniques. [7]

UNIT - IV

- 7 a) Elaborate on various types of session hijacking? Give their merits and demerits. [7]
b) How does identity theft differ from financial fraud? Give a case study. [7]
(OR)
- 8 a) Explain the process of social engineering with a neat diagram. [7]
b) Discuss the social Engineering tool kit (SET) merits and demerits. [7]

UNIT - V

- 9 a) Explain vulnerability assessment in detail. [7]
b) How does watermarking safeguard data? Describe. [7]
(OR)
- 10 a) Describe the use of hash functions in cryptography and ethical hacking [7]
b) Elaborate on the steganography methods and attacks. [7]



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Max. Marks: 70

*Answer any FIVE Questions
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UNIT - I

- 1 a) What are ports? List some useful ports. [7]
b) What are Protocols? Explain any three widely used protocols. [7]
(OR)
- 2 a) Explain various steps in the installation of Kali LINUX. [7]
b) Give the significance of virtual machine and explain some virtualization softwares. [7]

UNIT - II

- 3 a) What are the objectives of foot printing? Explain External foot printing. [7]
b) Why does attacker need foot printing? Discuss the use of “Whois” in detail. [7]
(OR)
- 4 a) Explain flagscan using hPing3 with suitable examples. [7]
b) Describe Xmas scan and ICMP echo scan. [7]

UNIT - III

- 5 a) What is virus? Explain the working of virus. [7]
b) Give the characteristics of virus attacks. Mention the threats from a virus attack. [7]
(OR)
- 6 a) Discuss manual and automated password cracking. [7]
b) Differentiate amongst Trojan, virus, worm and attack. [7]

UNIT - IV

- 7 a) What are various types of sniffing? Explain some active sniffing techniques. [7]
b) What is phishing? Mention some types of phishing attacks. [7]
(OR)
- 8 a) Explain identity theft in detail. Give its implications. [7]
b) Describe the step by step procedure to be followed in session hijacking. [7]

UNIT - V

- 9 a) Discuss the role of digital signatures in cryptography. [7]
b) Give the features of The Open Web Application Security Project (OWASP). [7]
(OR)
- 10 a) Describe the process of steganography with a neat sketch. [7]
b) How Damn Vulnerable Web Application (DVWA) is installed and tested? [7]



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Set No. 3

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ETHICAL HACKING

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Time: 3 hours

Max. Marks: 70

*Answer any FIVE Questions
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UNIT - I

- 1 a) Describe the steps to be followed in web application penetration testing. [7]
b) Explain the network penetration testing. How is it differing from other types? [7]
(OR)
- 2 a) What is Kali LINUX? Explain its included tools and supported platforms. [7]
b) What is Virtualization? Briefly explain some virtualization software. [7]

UNIT - II

- 3 a) Compare and contrast active and passive foot printing. [7]
b) Explain the use of nslookup in windows command line with suitable examples. [7]
(OR)
- 4 a) What is the objective of scanning? Elaborate on vulnerability scanning. [7]
b) Explain port scanning using Nmap. [7]

UNIT - III

- 5 a) Draw the lifecycle of virus? give the classification of virus. [7]
b) What is Trojan? Explain the working of Trojan. [7]
(OR)
- 6 a) Explain password cracking in detail. What countermeasures need to be taken to withstand with password cracking? [7]
b) Write a short note on virus construction kit. [7]

UNIT - IV

- 7 a) What are various tools available for session hijacking? Give their features. [7]
b) What is the difference between data theft and identity theft? Explain with an example. [7]
(OR)
- 8 a) Discuss human based and computer based social engineering techniques. [7]
b) What is sniffing? Compare active with passive sniffing techniques. [7]

UNIT - V

- 9 a) What are the requirements of watermark? Give its limitations. [7]
b) List and explain the major challenges of Steganography. [7]
(OR)
- 10 What are the five types of vulnerability assessments? What questions need to be asked during vulnerability assessment? [14]



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UNIT - I

- 1 a) Differentiate between web application penetration testing and mobile application penetration testing. [7]
b) Describe the procedure for report writing of penetration testing. [7]
(OR)
- 2 a) Outline the included tools and supported platforms of Kali LINUX. [7]
b) Explain various network types? Mention and explain widely used protocols. [7]

UNIT - II

- 3 a) Compare Internal foot printing with external foot printing [7]
b) Explain the use of ping tool for foot printing. [7]
(OR)
- 4 a) Compare and contrast remote scanning with port scanning. [7]
b) How do hackers scan for vulnerability? Explain. [7]

UNIT - III

- 5 a) Write short notes on Keyloggers and describe how do they affect the system? [7]
b) Explain the working of Trojans and Backdoors. [7]
- 6 a) What are the various ways in which a system can be hacked? Explain them. [7]
b) Explain the infection techniques of Trojan. [7]

UNIT - IV

- 7 a) Differentiate between human based social engineering and computer based social engineering. [7]
b) How packet analysis does causes a threat to user community? Explain. [7]
(OR)
- 8 What types of social engineering attacks can be simulated via social engineering tools? Explain with examples. [14]

UNIT - V

- 9 a) What techniques are used in steganography? Explain them. [7]
b) What are the merits and demerits of DVWA? [7]
(OR)
- 10 What services are provided through OWASP? What tool does OWASP provide that can be used to find vulnerabilities? [14]