Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – SUMMER 2021

Subject Code:3150714   **Date:07/09/2021**
Subject Name:Cyber Security
Time:10:30 AM TO 01:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	What is Vulnerability? Give small example	**03**
	(b)	Write short note on Nmap and Netcat	**04**
	(c)	What is OpenVas? Write advantage and disadvantage of OpenVas.	**07**
Q.2	**(a)**	Write benefits of Metasploit	**03**
	(b)	Explain Following terms: 1. Datapipe 2. Fpipe 3.WinRelay 4.Traffic Probe	**04**
	(c)	Describe Network Sniffers with suitable example.	**07**
		OR	
	(c)	Explain different functionally provide by Wireshark.	**07**
Q.3	**(a)**	What is Packet Filter Vs Firewall?	**03**
	(b)	Difference between Stateless Vs Stateful Firewalls.	**04**
	(c)	Explain in details: Network Address Translation (NAT) with suitable diagram.	**07**
		OR	
Q.3	**(a)**	What is Port Forwarding?	**03**
	(b)	Write short note on Tcpdump and Windump.	**04**
	(c)	Describe all HTTP utilities in details.	**07**
Q.4	**(a)**	Brief out the Sqlmap.	**03**
	(b)	Give brief introduction of Brute-Force Attack.	**04**
	(c)	List down the Application Inspection tools. Explain any two in details.	**07**
		OR	
Q.4	**(a)**	What is Cyber Crime? Explain with example.	**03**
	(b)	Explain types of Cyber Crimes.	**04**
	(c)	Explain in details: Hacking, Attack vectors, Cyberspace and Criminal Behavior.	**07**
Q.5	**(a)**	What is Digital Forensics?	**03**
	(b)	List down and explain Contemporary Crimes.	**04**
	(c)	Describe DOS and DDOS attack with suitable example.	**07**
		OR	
Q.5	**(a)**	What is Virus and Warms?	**03**
	(b)	Explain in details: Buffer Overflow.	**04**
	(c)	Which types of attack possible on wireless Networks? Explain in details.	**07**

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – WINTER 2021

Subject Code:3150714   **Date:15/12/2021**
Subject Name:Cyber Security
Time:02:30 PM TO 05:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Explain Vulnerability Scanning.	**03**
	(b)	Define the term in briefly: (i) Open Port Identification (ii) Banner Check	**04**
	(c)	Describe Network Sniffers and Injection Tool. Explain any two injection tools in brief.	**07**
Q.2	**(a)**	Define Network Address Translation.	**03**
	(b)	What is Probe. Explain its different types.	**04**
	(c)	Differentiate between Packet Filter and Firewall.	**07**
		OR	
	(c)	Differentiate between Stateless and Stateful Firewalls.	**07**
Q.3	**(a)**	Define Snort.	**03**
	(b)	What are the different usages of Network Sniffers? List out it.	**04**
	(c)	List out various Application Inspection tools. Explain any two.	**07**
		OR	
Q.3	**(a)**	How do you protect Wireless Network?	**03**
	(b)	What do you mean by Password cracking and brute force tools? Explain any one in brief.	**04**
	(c)	What are the different kinds of Web Vulnerabilities Tools available? Explain any two in brief.	**07**
Q.4	**(a)**	Define Denial-of-Service.	**03**
	(b)	Justify the attack vector. List out different types of attack vector.	**04**
	(c)	What is Firewall and illustrate its different types.	**07**
		OR	
Q.4	**(a)**	Illustrate the aim and objective of Indian IT ACT 2000.	**03**
	(b)	List out different types of Traditional Problems Associated with Computer Crime.	**04**
	(c)	What is Incident Response. Explain it process flow with appropriate diagram.	**07**
Q.5	**(a)**	Define the term: (i)Trojan Horse (ii)Spyware	**03**
	(b)	What is Destruction of Data. List out the different reason for it.	**04**
	(c)	What are the Cyber-Crime Scenarios and explain its applicability for Legal Sections?	**07**
		OR	
Q.5	**(a)**	What is Keyloggers? Explain different types of Keyloggers.	**03**
	(b)	Differentiate between Computer Viruses and Worms.	**04**
	(c)	Define the Cyber Crime in your own word. Explain the different type of classification of Cyber Crime.	**07**

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GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V(NEW) EXAMINATION – SUMMER 2022

Subject Code:3150714   **Date:02/06/2022**
Subject Name:Cyber Security
Time:02:30 PM TO 05:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Explain the terms : Datapipe, Fpipe and WinRelay.	**03**
	(b)	What do you mean by Vulnerability? Explain types of vulnerabilities in detail with its example.	**04**
	(c)	What is Cybercrime? Explain the different categories of cybercrime in details.	**07**
Q.2	**(a)**	What is Metasploit? Explain payload types in short.	**03**
	(b)	What is Firewall? Explain its type with rules in detail.	**04**
	(c)	What is Nmap? Explain different functionality with its command in detail.	**07**
		OR	
	(c)	What is Netcat? Explain steps for File Transfer process by using Netcat in detail.	**07**
Q.3	**(a)**	Write a short note on 'Curl'.	**03**
	(b)	Describe Snort in detail.	**04**
	(c)	What is NAT? Describe port forwarding with its types in detail.	**07**
		OR	
Q.3	**(a)**	Write a short note on 'Nikto'.	**03**
	(b)	Explain DOS and DDOS Attack in detail.	**04**
	(c)	What is a DVWA? Explain SQL injection in DVWA with example in detail.	**07**
Q.4	**(a)**	Write a short note on Cyberspace.	**03**
	(b)	Explain Hydra in detail with example.	**04**
	(c)	What is XSS? Explain iframe and cookie vulnerability by using XSS in detail.	**07**
		OR	
Q.4	**(a)**	Write a short notes on 'Digital Forensic'.	**03**
	(b)	What is ZAP? Explain its uses and features in detail.	**04**
	(c)	What do you mean by Brute force attack? Explain its type with example in detail.	**07**
Q.5	**(a)**	Write a short notes on 'Steganography'.	**03**
	(b)	Describe Phishing in detail with example..	**04**
	(c)	Explain IT-Act 2000 in brief. List out different sections under IT-Act 2000 and explain any four in detail.	**07**
		OR	
Q.5	**(a)**	Explain the term: Buffer Overflow	**03**
	(b)	What do you mean by Hacker? Explain its type in detail.	**04**
	(c)	Explain Virus, worms, Trojan Horses and backdoors in detail with example.	**07**

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Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – WINTER 2022

Subject Code:3150714   **Date:04-01-2023**
Subject Name:Cyber Security
Time:10:30 AM TO 01:00 PM   **Total Marks:70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Describe Reconnaissance and Probe	**03**
	(b)	Explain Phishing and 3 ways it is done.	**04**
	(c)	Explain Metasploit and Nmap	**07**
Q.2	**(a)**	Describe NAT with example	**03**
	(b)	Differentiate between Stateful and Stateless firewalls.	**04**
	(c)	Explain Injection tools like Tcpdump, Windump and Wireshark	**07**
		OR	
	(c)	Explain Ettercap and Hping Kismet	**07**
Q.3	**(a)**	Explain Zed Attack Proxy.	**03**
	(b)	Differentiate between John Ripper and HTC-Hydra.	**04**
	(c)	Explain the web vulnerability tools like Nikto and W3af.	**07**
		OR	
Q.3	**(a)**	Explain Curl, OpenSSL and Stunnel.	**03**
	(b)	Differentiate between packet filter and firewall.	**04**
	(c)	Explain the network monitoring tool Snort.	**07**
Q.4	**(a)**	Describe attack vector, cyberspace and IT act 2000.	**03**
	(b)	Explain hacking and its types.	**04**
	(c)	Explain Incident response and digital forensics.	**07**
		OR	
Q.4	**(a)**	List three contemporary crimes?	**03**
	(b)	Explain the types of cybercrimes.	**04**
	(c)	Explain DVWA and Web goat	**07**
Q.5	**(a)**	Features of Trojan virus.	**03**
	(b)	List four functions a backdoor can do to help the attacker.	**04**
	(c)	Explain how SQL Injection attacks can be prevented.	**07**
		OR	
Q.5	**(a)**	What is Stegnography and list two examples.	**03**
	(b)	Differentiate between	**04**
		1. DOS and DDOS attack	
		2. Keyloggers and Spyware	
	(c)	Explain the tools for attacking wireless Networks.	**07**

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GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER- V EXAMINATION-SUMMER 2023

Subject Code: 3150714   **Date: 23/06/2023**
Subject Name: Cyber Security
Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Define System and Web Vulnerability.	**03**
	(b)	Explain Metasploit and OpenVAS.	**04**
	(c)	Describe Nmap. Explain different functionality with its command in detail.	**07**
Q.2	**(a)**	Define Snort.	**03**
	(b)	Differentiate between Stateful and Stateless firewalls.	**04**
	(c)	Explain Network Sniffers with suitable example.	**07**
		OR	
	(c)	Define NAT. Describe Port Forwarding with its types in detail.	**07**
Q.3	**(a)**	Explain Curl, OpenSSL and Stunnel.	**03**
	(b)	Define Password cracking and Brute force tools. Explain any one in brief.	**04**
	(c)	Describe DVWA. Explain SQL injection in DVWA with example in detail.	**07**
		OR	
Q.3	**(a)**	Explain Zed Attack Proxy.	**03**
	(b)	Explain following terms: 1. Datapipe 2. Fpipe 3.WinRelay 4.Traffic Probe	**04**
	(c)	Discuss the Web Vulnerability tools in detail.	**07**
Q.4	**(a)**	Define Digital Forensics.	**03**
	(b)	Explain types of Cyber Crimes.	**04**
	(c)	Explain IT Act, 2000. List out and discuss different sections under IT Act, 2000 in detail.	**07**
		OR	
Q.4	**(a)**	Define Incident Response.	**03**
	(b)	Discuss about Contaminants and Destruction of Data.	**04**
	(c)	Discuss Attack vector. List out different types of Attack vector.	**07**
Q.5	**(a)**	Explain SQL Injection.	**03**
	(b)	Discuss Keyloggers and Spyware.	**04**
	(c)	Explain Virus, Worms, Trojan Horses and Backdoors in detail with example.	**07**
		OR	
Q.5	**(a)**	Explain Steganography with example.	**03**
	(b)	Explain Buffer Overflow attack in detail.	**04**
	(c)	Describe DOS and DDOS attack with suitable example.	**07**

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – SUMMER 2024

Subject Code:3150714   **Date:16-05-2024**
Subject Name:Cyber Security
Time:02:30 PM TO 05:00 PM   **Total Marks:70**
Instructions:
1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

			MARKS
Q.1	**(a)**	Write sort note on Indian IT ACT 2000.	**03**
	(b)	What is the difference between Threat, Vulnerability, and Risk and Computer Virus?	**04**
	(c)	What is the need of Demilitarized Zone (DMZ)? Explain with example.	**07**
Q.2	**(a)**	Define the term in briefly: (i) Open Port Identification (ii) Banner Check	**03**
	(b)	What is Probe. Explain its different types.	**04**
	(c)	List and explain types of Network Sniffer. List Network Sniffers and Injection tools.	**07**
		OR	
	(c)	Explain Ettercap and Hping Kismet.	**07**
Q.3	**(a)**	What do you mean by Cyber Crime? How do you relate it with Hacking?	**03**
	(b)	Explain Traditional Problems Associated with Computer Crime.	**04**
	(c)	What is firewall? Explain three main type of firewall.	**07**
		OR	
Q.3	**(a)**	How ZAP proxy works? Explain with suitable example.	**03**
	(b)	What do you mean of contaminants and destruction of data? Explain it.	**04**
	(c)	Explain Digital Forensics life cycle in detail.	**07**
Q.4	**(a)**	Explain Curl, OpenSSL and Stunnel.	**03**
	(b)	Explain Wireshark and how do we use Wireshark to find a password in network?	**04**
	(c)	What is Netcat? Explain steps for File Transfer process by using Netcat in detail.	**07**
		OR	
Q.4	**(a)**	What is Metasploit? Explain payload types in short.	**03**
	(b)	How Buffer overflow attack works?	**04**
	(c)	What is Nmap? Explain different functionality with its command in detail.	**07**
Q.5	**(a)**	What is Brute-Force Attack? How it can be prevented?	**03**
	(b)	Justify the attack vector. List out different types of attack vector.	**04**
	(c)	Explain how SQL Injection attacks can be prevented.	**07**
		OR	
Q.5	**(a)**	What is Keyloggers? Explain different types of Keyloggers.	**03**
	(b)	Explain L0htcrack, HTC-Hydra, Pwdump.	**04**
	(c)	Explain DVWA and Web goat.	**07**

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GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–V (NEW) EXAMINATION – WINTER 2023

Subject Code:3150714   **Date:05-12-2023**
Subject Name: Cyber Security
Time:10:30 AM TO 01:00 PM   **Total Marks:70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	(a)	Describe Network Sniffers with suitable example.	03
	(b)	What is Cyber Crime? Explain different types of Cyber Crimes in brief.	04
	(c)	What do you mean by Password cracking and brute force tools? Explain any one in detail.	07
Q.2	(a)	Differentiate between Computer Viruses and Worms.	03
	(b)	What are the Cyber Crime Scenarios and explain its applicability for Legal Sections?	04
	(c)	Explain attacks on wireless network. How do you protect Wireless Network?	07

OR

	(c)	Define Denial-of-Service (DOS). How can we prevent DDOS attack?	07
Q.3	(a)	What is Keyloggers? Explain different types of Keyloggers.	03
	(b)	Explain Wireshark and how do we use Wireshark to find a password in network?	04
	(c)	What is Hacking? Explain types of Hackers.	07

OR

Q.3	(a)	Difference between Stateless Vs Stateful Firewalls.	03
	(b)	Define Snort? What is the difference between IPS and IDS?	04
	(c)	Explain in details: Network Address Translation (NAT) with suitable diagram.	07
Q.4	(a)	What is SQL injection?	03
	(b)	List out different types of Traditional Problems Associated with Computer Crime.	04
	(c)	Describe all HTTP utilities in details.	07

OR

Q.4	(a)	What is contemporary approach in criminology in the world of computer science?	03
	(b)	Explain in details: Buffer Overflow.	04
	(c)	Explain in details: Hacking, Attack vectors, Cyberspace and Criminal Behavior.	07
Q.5	(a)	Explain Vulnerability Scanning.	03
	(b)	What is OpenVas? Write advantage and disadvantage of OpenVas.	04
	(c)	Describe credit card fraud that can be done through mobile or other wireless devices.	07

OR

Q.5	(a)	Explain passive attacks and active attacks with respect to cyber criminals?	03
	(b)	What is Packet Filter Vs Firewall?	04
	(c)	What is Incident Response. Explain it process flow with appropriate diagram.	07

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