

12 MAR 2025 (M)

NCU/FRM/2.6/ACAD/027

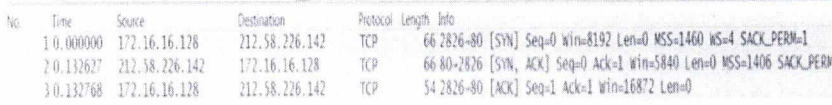
	Question paper for Minor Test	Review Date:
	School of Engineering & Technology	Session: Jan-June 2025
	Programme Name: MCA	Maximum Marks: 50
	Course Name: Cyber Security	Duration: 1.5hrs
	Course Code: MCL 517	Sheet 1 of 3*
	Semester: Even, 2 nd Sem	

Note:

1. All the questions are compulsory.
2. Marks and COs are indicated against the questions.

CO1: Memorize the important concepts of information and networking essential for ethical hacking purpose
 CO2: Identify various reconnaissance tools to gather information from various publicly available information to understand the target environment.
 CO3: Identify scanning tools to conduct comprehensive network sweeps, port scans and OS fingerprinting.
 Student should be able to correlate these tools on various parameters.

SECTION A (15 marks)

Q. No.	Question	Marks	CO's
Q1.	How can the whois command be used for information gathering?	3	CO2
Q2.	Write down the procedure of extracting all emails from a website during information reconnaissance phase?	3	CO2
Q3.	Looking at the Wireshark dump below. How will you determine whether it is regular or a stealth scan? Also List source and destination port number for the source machine.	3	CO3
			
Q4.	An organization with hundreds of devices wants to avoid using multiple public IP addresses while ensuring all devices can access the internet. What role does NAT play in this scenario, and how does it solve the problem?	3	CO1
Q5.	Explain the Command nikto -Tuning x 9 -h abc.com	3	CO3

SECTION B (25 marks)

Q6.	You have been hired as a cybersecurity consultant for a financial institution. The bank is struggling to balance security, usability, and performance. How would you use the concept of the Security Triangle to ensure a balanced approach to cybersecurity?	5	CO1
Q7.	How does the Cyber Kill Chain help organizations improve their cybersecurity defenses? Also list its various stages.	5	CO1
Q8.	What are the main components of a vulnerability scanner's architecture? Also explain its components.	5	CO3

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Q9.	A financial services company hosts its customer portal on a shared server. Recently, it has experienced security breaches, including data leaks and phishing attacks. Why is shared hosting a potential risk for financial websites ?	5	CO2
Q10.	Imagine you log into an online shopping website, and your session expires once you close the browser. What type of cookie was used, and why?	5	CO3
SECTION C (10 marks)			
Q11.	Explain following Commands: a) theharvester -d yahoo.com -l 100 -b ALL b) Dig SOA ncuindia.edu c) inurl: gov intitle: login filetype:pk d) nslookup -type=MX example.com e) traceroute google.com	10	CO2

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