Total No. of Printed Pages: 2

PRN No.	

PAPER CSE-AI - U325-244B(ESE)
CODE CSE-AIML - U325-254B(ESE)

(AY:2024-25) May 2025 (ENDSEM) EXAM

TY (SEMESTER - II)

COURSE NAME: CYBER SECURITY **Branch: CSE (AI) & CSE (AIML)** **COURSE CODE: CAUA32204B & CMUA32204B**

T.Y (PATTERN 2020R1)

Time: [1Hr 30 Min] **[Max. Marks: 40]**

(*) Instructions to candidates:

1) **Figures to the right indicate full marks.Use of scientific calculator is allowed**
2) **Use suitable data wherever required**
3) **All questions are compulsory. Solve any two sub question each from Questions1 , 2 ,3 and 4**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level
Q.1	a) Explain how criminals plan the attacks? List the phases involved in planning cyber crimes	[5]	CO1	2
	b) Explain briefly the vulnerabilities, threats, and attacks. What is the relationship between them?	[5]	CO1	2
	c) Illustrate about CIA Triad.	[5]	CO1	2
Q2	a) Explain active attacks and passive attacks in shorts.	[5]	CO2	3
	b) Solve using the keyword "**MONARCHY**", construct the 5×5 Playfair cipher matrix (treating 'I' and 'J' as the same letter). Then, encrypt the plaintext "**BALLOON**" using this matrix.	[5]	CO2	3
	c) Solve using the keyword "**CIPHER**", encrypt the plaintext "**MEET ME AFTER THE PARTY**" using the single columnar transposition cipher.	[5]	CO2	3
Q3	a) Describe the different types of scans that Nessus can perform. How do these scans help in identifying vulnerabilities within a network?	[5]	CO3	2
	b) Describe how you would use Burp Suite to identify and exploit a SQL injection vulnerability in a web application	[5]	CO3	2
	c) Explain four different types of scans that can be performed using Nmap (e.g., SYN scan, UDP scan).	[5]	CO3	2

Q4	a) Explain the purpose of the Harvester tool in cyber security. Discuss how it aids in the reconnaissance phase of penetration testing.	[5]	CO4	2
	b) Describe the term "threat agent" in the context of drone security. Provide two examples of threat agents and describe their potential motives.	[5]	CO4	2
	c) Describe the role of Netcraft in internet security. Discuss how its services contribute to identifying and mitigating phishing attacks.	[5]	CO4	2

NOTE: [BT Level – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create]