



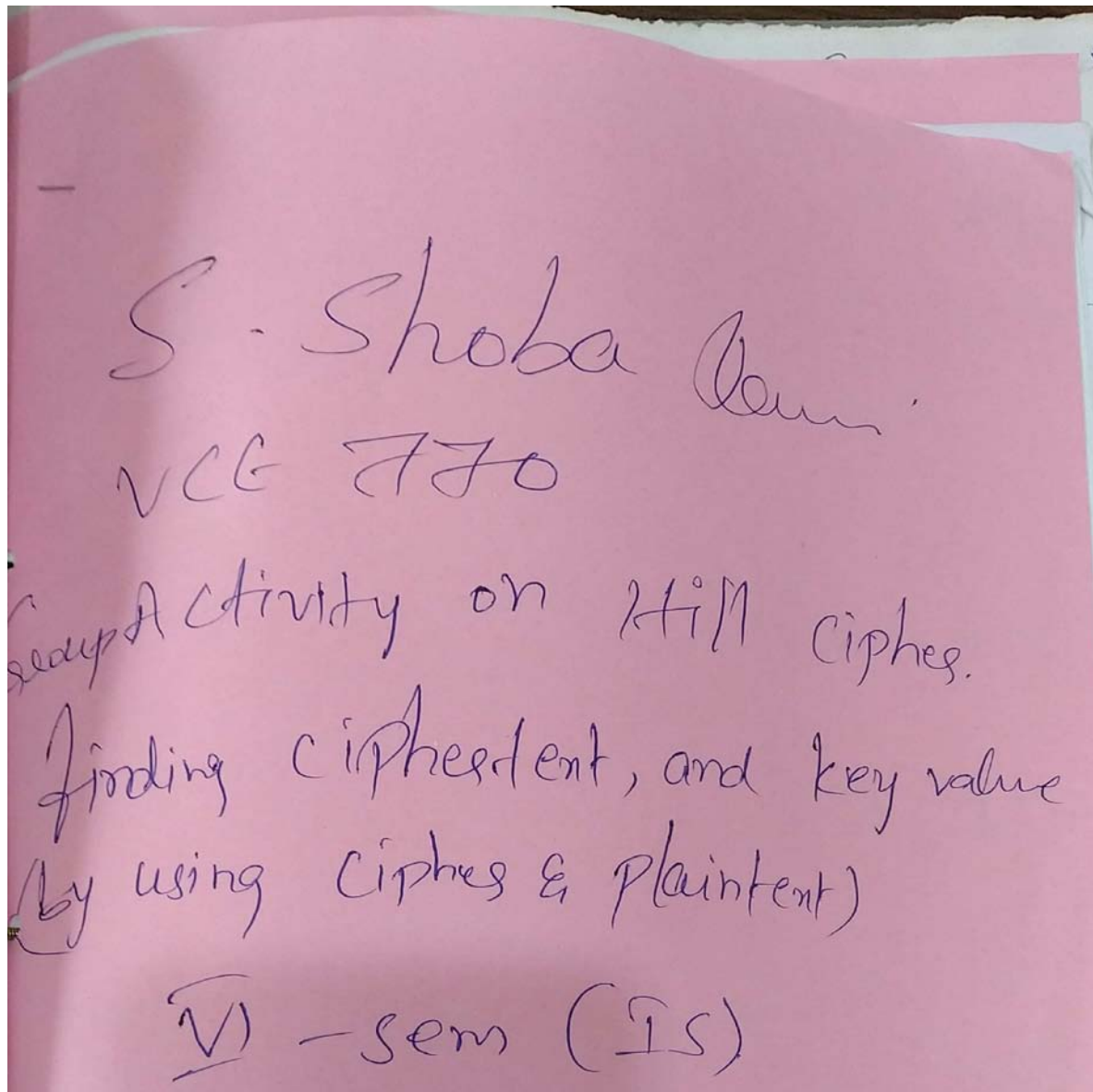
VARDHAMAN COLLEGE OF ENGINEERING (AUTONOMOUS)

Accredited by NAAC with 'A' Grade, NBA, ISO 9001:2008 Certified
Approved by AICTE, New Delhi, Affiliated to JNTUH
Programmes Accredited by NBA



Department of Computer Science & Engineering

Dynamic Activities Conducted by the Faculty Members



YI | TJ

$$YI = \begin{bmatrix} 24 \\ 8 \end{bmatrix}$$

$$TJ = \begin{bmatrix} 19 \\ 9 \end{bmatrix}$$

$$\begin{bmatrix} 5 & C & 2 \\ 5 & D & 2 \\ 5 & G & 2 \\ 5 & F & 7 \end{bmatrix}$$

= KP
 $P = K^{-1} \cdot C$

$$P_1 = \begin{bmatrix} 5 & 1 \\ 2 & 7 \end{bmatrix} \cdot \begin{bmatrix} 24 & 19 \\ 8 & 9 \end{bmatrix} \pmod{26} = \begin{bmatrix} 128 & 104 \\ 104 & 101 \end{bmatrix} \pmod{26} = \begin{bmatrix} 24 & 0 \\ 0 & 23 \end{bmatrix} = \underline{\text{yaax}}$$

$$\begin{bmatrix} 15 & 22 \\ 6 & 9 \end{bmatrix} \pmod{26} = \begin{bmatrix} 31 & 119 \\ 72 & 107 \end{bmatrix} \pmod{26} = \begin{bmatrix} 3 & 15 \\ 20 & 3 \end{bmatrix} = \underline{\text{dupd.}}$$

$$\begin{bmatrix} 14 & 5 \\ 22 & 0 \end{bmatrix} \pmod{26} = \begin{bmatrix} 92 & 25 \\ 182 & 10 \end{bmatrix} \pmod{26} = \begin{bmatrix} 14 & 25 \\ 0 & 10 \end{bmatrix} = \underline{\text{oaazk}}$$

~~$\begin{bmatrix} 16 & 16 \\ 19 & 23 \end{bmatrix} \pmod{26}$~~

$$\begin{bmatrix} 16 & 16 & 2 & 12 & 4 & 18 \\ 19 & 23 & 18 & 0 & 19 & 16 \end{bmatrix} \pmod{26} = \begin{bmatrix} 99 & 103 & 28 & 60 & 89 & 106 \\ 165 & 193 & 130 & 24 & 141 & 142 \end{bmatrix} \pmod{26} = \begin{bmatrix} 21 & 25 & 2 & 8 & 13 & 2 \\ 9 & 11 & 0 & 24 & 11 & 13 \end{bmatrix}$$

\Rightarrow vijzelcaiyndes

$$\begin{bmatrix} 1 \\ 7 \end{bmatrix} = \begin{bmatrix} 20 & 16 & 15 & 18 & 6 & 2 & 16 & 24 \\ 18 & 0 & 20 & 16 & 10 & 15 & 19 & 9 \end{bmatrix} = \begin{bmatrix} 118 & 80 & 95 & 7 & 40 & 25 & 129 \\ 116 & 32 & 120 & 5 & 82 & 67 & 111 \end{bmatrix} \pmod{26}$$

$$= \begin{bmatrix} 14 & 2 & 17 & 7 & 14 & 25 & v & 25 \\ 10 & 6 & 14 & 3 & 4 & 5 & j & 7 \end{bmatrix}$$

\Rightarrow okcgrocs oezf vijzh

yaax dupd oaazk vijzelcaiyndes okcgrocs oezf vijzh

$p = \text{meet}$ at the usual place at ten rather than eight o'clock

$$k = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix}$$

$$C_1 = kP \pmod{26} = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 12 & 4 \\ 4 & 12 \end{bmatrix} \pmod{26} = \begin{bmatrix} 132 & 112 \\ 88 & 153 \end{bmatrix} \pmod{26} = \begin{bmatrix} 20 & 8 \\ 10 & 23 \end{bmatrix} = \text{UIKX}$$

$$C_2 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 4 & 12 \\ 17 & 0 \end{bmatrix} \pmod{26} = \begin{bmatrix} 104 & 107 \\ 139 & 25 \end{bmatrix} \pmod{26} = \begin{bmatrix} 0 & 3 \\ 9 & 9 \end{bmatrix} = \text{ADJJ}$$

$$C_3 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 12 & 4 \\ 0 & 12 \end{bmatrix} \pmod{26} = \begin{bmatrix} 108 & 112 \\ 60 & 153 \end{bmatrix} \pmod{26} = \begin{bmatrix} 4 & 8 \\ 18 & 23 \end{bmatrix} = \text{EISX}$$

$$C_4 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 19 & 7 \\ 4 & 20 \end{bmatrix} \pmod{26} = \begin{bmatrix} 187 & 143 \\ 122 & 175 \end{bmatrix} \pmod{26} = \begin{bmatrix} 5 & 13 \\ 19 & 19 \end{bmatrix} = \text{FNIT}$$

$$C_5 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 12 & 20 \\ 0 & 11 \end{bmatrix} \pmod{26} = \begin{bmatrix} 162 & 221 \\ 90 & 177 \end{bmatrix} \pmod{26} = \begin{bmatrix} 6 & 13 \\ 12 & 21 \end{bmatrix} = \text{GNMV}$$

$$C_6 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 4 & 0 \\ 19 & 12 \end{bmatrix} \pmod{26} = \begin{bmatrix} 112 & 76 \\ 153 & 123 \end{bmatrix} \pmod{26} = \begin{bmatrix} 8 & 24 \\ 23 & 3 \end{bmatrix} = \text{IYXD}$$

$$C_8 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 19 & 7 \\ 4 & 17 \end{bmatrix} \pmod{26} = \begin{bmatrix} 206 & 125 \\ 121 & 155 \end{bmatrix} \pmod{26} = \begin{bmatrix} 24 & 21 \\ 17 & 5 \end{bmatrix} = \text{YRVF}$$

$$C_9 = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 19 & 7 \\ 0 & 13 \end{bmatrix} \pmod{26} = \begin{bmatrix} 171 & 115 \\ 95 & 126 \end{bmatrix} \pmod{26} = \begin{bmatrix} 15 & 11 \\ 17 & 22 \end{bmatrix} = \text{PRLW}$$

$$C_{10} = \begin{bmatrix} 9 & 4 \\ 5 & 7 \end{bmatrix} \begin{bmatrix} 4 & 9 \\ 6 & \end{bmatrix}$$

Handwritten signature

Faculty Name: Mrs. S. Shoba Rani

Activity Name: TAPPS

Class: B.Tech III Year

Subject: Information Security

Topic: Finding Cipher Text and Key value By Using Cipher & Plain text