

PRAKTIKUM KRIPTOGRAFI

Exercise 2



Disusun oleh:

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PROGRAM STUDI S-1 TEKNIK INFORMATIKA

FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM

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1. Exercise Shift Cipher

A. Enkripsikan **HASKELL** dengan $K = 20$

Jawab :

$$\begin{aligned}E(7) &= (7 + 20) \bmod 26 = 27 \bmod 26 = 1 \rightarrow B \\E(0) &= (0 + 20) \bmod 26 = 20 \bmod 26 = 20 \rightarrow U \\E(18) &= (18 + 20) \bmod 26 = 38 \bmod 26 = 12 \rightarrow M \\E(10) &= (10 + 20) \bmod 26 = 30 \bmod 26 = 4 \rightarrow E \\E(4) &= (4 + 20) \bmod 26 = 24 \bmod 26 = 24 \rightarrow Y \\E(11) &= (11 + 20) \bmod 26 = 31 \bmod 26 = 5 \rightarrow F \\E(11) &= (11 + 20) \bmod 26 = 31 \bmod 26 = 5 \rightarrow F\end{aligned}$$

Hasil Enkripsi: **BUMEYFF**

B. Ubah **ETURF** menjadi Plaintext dengan $K = 12$

Jawab :

$$\begin{aligned}D(4) &= (4 - 12) \bmod 26 = -8 \bmod 26 = 18 \rightarrow S \\D(19) &= (19 - 12) \bmod 26 = 7 \bmod 26 = 7 \rightarrow H \\D(20) &= (20 - 12) \bmod 26 = 8 \bmod 26 = 8 \rightarrow I \\D(17) &= (17 - 12) \bmod 26 = 5 \bmod 26 = 5 \rightarrow F \\D(5) &= (5 - 12) \bmod 26 = -7 \bmod 26 = 19 \rightarrow T\end{aligned}$$

Hasil Dekripsi: **SHIFT**

2. Exercise ROT 13

Dekripsikan **cenxgvxhz xevcgbtensv** dengan ROT 13

Jawab :

$$\begin{aligned}\text{ROT13}(c) &= p \\ \text{ROT13}(e) &= r \\ \text{ROT13}(n) &= a\end{aligned}$$

ROT13(x) = k

ROT13(g) = t

ROT13(v) = i

ROT13(x) = k

ROT13(h) = u

ROT13(z) = m

ROT13(x) = k

ROT13(e) = r

ROT13(v) = i

ROT13(c) = p

ROT13(g) = t

ROT13(b) = o

ROT13(t) = g

ROT13(e) = r

ROT13(n) = a

ROT13(s) = f

ROT13(v) = i

Hasil Dekripsi: **praktikum kriptografi**