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Rumus :

$$E(x) = (ax + b) \bmod 26$$

$$D(y) = a^{-1} (y - b) \bmod 26, \text{ dimana } a = 17 \text{ dan } b = 5$$

Mencari a^{-1}

$$\text{Gcd}(17, 26)$$

$$26 = 17 * 1 + 9 \quad \rightarrow q_1 = 1$$

$$17 = 9 * 1 + 8 \quad \rightarrow q_2 = 1$$

$$9 = 8 * 1 + 1 \quad \rightarrow q_3 = 1$$

$$8 = 1 * 8 + 0$$

$$t_0 = 0, t_1 = 1$$

$$t_2 = (0 - (1.1)) \bmod 26 = -1 \bmod 26 = 25$$

$$t_3 = (1 - (1.25)) \bmod 26 = -24 \bmod 26 = 2$$

$$t_4 = (25 - (1.2)) \bmod 26 = 23 \bmod 26 = 23$$

Enkripsi

$$E(9) = (17(9) + 5) \bmod 26 = 158 \bmod 26 = 2 \Rightarrow C$$

$$E(14) = (17(14) + 5) \bmod 26 = 243 \bmod 26 = 9 \Rightarrow J$$

$$E(13) = (17(13) + 5) \bmod 26 = 226 \bmod 26 = 18 \Rightarrow S$$

$$E(0) = (17(0) + 5) \bmod 26 = 5 \bmod 26 = 5 \Rightarrow F$$

$$E(19) = (17(19) + 5) \bmod 26 = 328 \bmod 26 = 16 \Rightarrow Q$$

$$E(7) = (17(7) + 5) \bmod 26 = 119 \bmod 26 = 20 \Rightarrow U$$

$$E(0) = (17(0) + 5) \bmod 26 = 5 \bmod 26 = 5 \Rightarrow F$$

$$E(13) = (17(13) + 5) \bmod 26 = 226 \bmod 26 = 18 \Rightarrow S$$

$$E(21) = (17(21) + 5) \bmod 26 = 362 \bmod 26 = 24 \Rightarrow Y$$

$$E(8) = (17(8) + 5) \bmod 26 = 141 \bmod 26 = 11 \Rightarrow L$$

$$E(2) = (17(2) + 5) \bmod 26 = 39 \bmod 26 = 13 \Rightarrow N$$

$$E(19) = (17(19) + 5) \bmod 26 = 328 \bmod 26 = 16 \Rightarrow Q$$

$$E(14) = (17(14) + 5) \bmod 26 = 243 \bmod 26 = 9 \Rightarrow J$$

$$E(17) = (17(17) + 5) \bmod 26 = 294 \bmod 26 = 8 \Rightarrow I$$

$$E(6) = (17(6) + 5) \bmod 26 = 107 \bmod 26 = 5 \Rightarrow D$$

$$E(14) = (17(14) + 5) \bmod 26 = 243 \bmod 26 = 9 \Rightarrow J$$

$$E(10) = (17(10) + 5) \bmod 26 = 175 \bmod 26 = 19 \Rightarrow T$$

$$E(11) = (17(11) + 5) \bmod 26 = 192 \bmod 26 = 10 \Rightarrow K$$

$$E(0) = (17(0) + 5) \bmod 26 = 5 \bmod 26 = 5 \Rightarrow F$$

$$E(18) = (17(18) + 5) \bmod 26 = 311 \bmod 26 = 25 \Rightarrow Z$$

JONATHAN VICTOR GOKLAS $\Rightarrow E(x) \Rightarrow$ CJSFQUFS YLNQJI DJTKFZ

Dekripsi

$$D(2) = (23(2 - 5)) \bmod 26 = -69 \bmod 26 = 9 \Rightarrow J$$

$$D(9) = (23(9 - 5)) \bmod 26 = 92 \bmod 26 = 14 \Rightarrow O$$

$$D(18) = (23(18 - 5)) \bmod 26 = 299 \bmod 26 = 13 \Rightarrow N$$

$$D(5) = (23(5 - 5)) \bmod 26 = 0 \bmod 26 = 0 \Rightarrow A$$

$$D(16) = (23(16 - 5)) \bmod 26 = 253 \bmod 26 = 19 \Rightarrow T$$

$$D(20) = (23(20 - 5)) \bmod 26 = 345 \bmod 26 = 7 \Rightarrow H$$

$$D(5) = (23(5 - 5)) \bmod 26 = 0 \bmod 26 = 0 \Rightarrow A$$

$$D(18) = (23(18 - 5)) \bmod 26 = 299 \bmod 26 = 13 \Rightarrow N$$

$$D(24) = (23(24 - 5)) \bmod 26 = 437 \bmod 26 = 21 \Rightarrow V$$

$$D(11) = (23(11 - 5)) \bmod 26 = 138 \bmod 26 = 8 \Rightarrow I$$

$$D(13) = (23(13 - 5)) \bmod 26 = 184 \bmod 26 = 2 \Rightarrow C$$

$$D(16) = (23(16 - 5)) \bmod 26 = 253 \bmod 26 = 19 \Rightarrow T$$

$$D(9) = (23(9 - 5)) \bmod 26 = 92 \bmod 26 = 14 \Rightarrow O$$

$$D(8) = (23(8 - 5)) \bmod 26 = 69 \bmod 26 = 17 \Rightarrow R$$

$$D(3) = (23(3 - 5)) \bmod 26 = -46 \bmod 26 = 6 \Rightarrow G$$

$$D(9) = (23(9 - 5)) \bmod 26 = 92 \bmod 26 = 14 \Rightarrow O$$

$$D(19) = (23(19 - 5)) \bmod 26 = 322 \bmod 26 = 10 \Rightarrow K$$

$$D(10) = (23(10 - 5)) \bmod 26 = 115 \bmod 26 = 11 \Rightarrow L$$

$$D(5) = (23(5 - 5)) \bmod 26 = 0 \bmod 26 = 0 \Rightarrow A$$

$$D(25) = (23(25 - 5)) \bmod 26 = 460 \bmod 26 = 18 \Rightarrow S$$

$$CJSFQUFS\ YLNQJI\ DJTKFZ \Rightarrow D(x) \Rightarrow \text{JONATHAN VICTOR GOKLAS}$$