

Subject:

Year. Month. Date.

$$1 \text{ V.C. } 10 = 1 \text{ V.C. } + 0 \text{ V.C.} \rightarrow x^r \text{ s } 0, 10, x^r \text{ s } 1 \rightarrow 0.01$$

(1) (2)

$$\rightarrow 1 \text{ V.C.} = r^v + r^0 + r^r + r^r + r^0 = (1.0.1.0.1.0.1)_r$$

$$1 \text{ V.C. } 10 = 1.0.1.0.1.0.1 \quad \begin{array}{l} \xrightarrow{1's \text{ complement}} 0.1.0.1.1.0.1 \\ \xrightarrow{2's \text{ complement}} 0.1.0.1.0.1.0.1 \end{array}$$

$$-1 \text{ V.C. } 10 = -1 \text{ V.C. } - 0 \text{ V.C.} \rightarrow x^r \text{ s } 1, 10, x^r \text{ s } 1 \rightarrow \{2, 11\} \rightarrow (11.00, 11)_r$$

$$\begin{array}{l} \xrightarrow{1's \text{ complement}} (r^n - 1) - N = 0.0.1.1.0.0 \\ \xrightarrow{2's \text{ complement}} r^n - N = 0.0.1.1.0.1 \end{array}$$

(2)

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ا)
$$\begin{array}{r} 11010101 \\ 11101 \\ \hline 11010101 \\ 00000000 \\ 11010101 \\ 11010101 \\ 11010101 \end{array}$$

$$110000100001$$

ب)
$$\begin{array}{l} A, R^2 = 111100010100 \\ B, A = 1.1.0.0.1 \end{array}$$

$$111100010100$$

$$110100001$$

$$11100010100$$

$$0000000000000000$$

$$0000000000000000$$

$$0000000000000000$$

$$111100010100$$

$$0000000000000000$$

$$111100010100$$

$$1001011110101010$$

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(4)

$$(101)_{10} = (1101000111)_2 \xrightarrow{\text{gray}} 101100100$$

(5)

در بیت بیت عمل xor / or

پایین ترین بیت که بت اول است ~~بیت~~ بیت به بیت 'gray' شود