

Easy

Deputy Executive Engineer (Electrician) 2026

Uttar Pradesh Public Service Commission / Assistant Engineer (Electrical)

8051

ADC

- A

1, 2, 3
- B

1, 2, 3

Correct
- C

1
- D

1, 3

Correct Answer: B

Full Detailed Explanation

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

2^n

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

For an n-bit ADC, the number of possible digital values is 2^n . The range of the input voltage is divided into 2^n equal intervals. The width of each interval is $\frac{V_{FS}}{2^n}$, where V_{FS} is the full-scale voltage. The digital value is determined by which interval the input voltage falls into. The digital value is an integer between 0 and $2^n - 1$.

: LSB $V_{FS}/2^n$;

0.5 LSB.

:

;

/

:

1/n

1-