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GATE: IN/28

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QUESTION: Consider the discrete time signal x[n] = u[-n+5] - u[n+3], where

$$u[n] = \begin{cases} 1; n \ge 0 \\ 0; n < 0 \end{cases}$$

The smallest n for which x[n] = 0 is?

Solution: From Fig. 1, the minimum value of n is given as

$$n = -3 \tag{1}$$

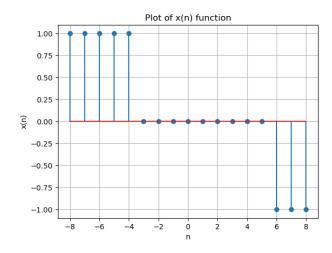


Fig. 1. Plot of function x(n) taken from python3