H. The function $F(n)$ is defined for all positive integers as follows: $F(1) = 0$ and for all $n \geqslant 2$,

$$F(n) = F(n-1) + 2 \qquad \text{if 2 divides } n \text{ but 3 does not divide } n;$$
$$F(n) = F(n-1) + 3 \qquad \text{if 3 divides } n \text{ but 2 does not divide } n;$$
$$F(n) = F(n-1) + 4 \qquad \text{if 2 and 3 both divide } n;$$
$$F(n) = F(n-1) \qquad \text{if neither 2 nor 3 divides } n.$$

The value of $F(6000)$ equals

(a) 9827,   (b) 10121,   (c) 11000,   (d) 12300,   (e) 12352.