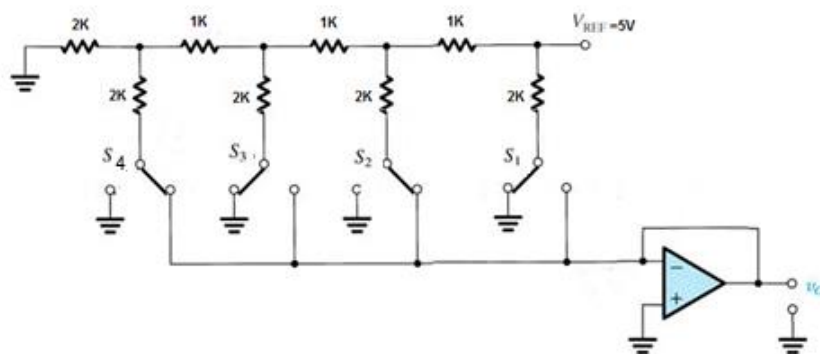1. The signal $x(t) = 5sin(15t – 60^\circ) + 2sin(7t)$ is periodic in

   A. π
   B. 15/7
   C. 15π
   D. 2π

2. What is the function of the TTL gate shown below

   A. $(\bar{A}.B) + (\bar{C}.D)$

   B. $\overline{(\bar{A}.B) + (\bar{C}.D)}$

   C. $(A.\bar{B}) + (C.\bar{D})$

   D. $\overline{(A.\bar{B}) + (C.\bar{D})}$

3. For the R-2R ladder shown below. What is the output voltage ? (check the state of the switches)

   A. 2.500V
   B. 0.3125V
   C. 1.5625V
   D. 3.1250V