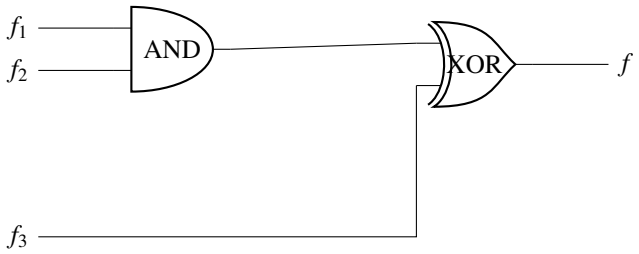
1. Consider three 4-variable functions f_1, f_2,and f_3, which are expressed in sum-of-minterms as
$f_1 = \sum(0, 2, 5, 8, 14)$, $f_2 = \sum(2, 3, 6, 8, 14, 15)$, $f_3 = \sum(2, 7, 11, 14)$
For the following circuit with one AND gate and one XOR gate, the output function f can be expressed as:
(GATE-CS2019,30)



(a) $\sum(7, 8, 11)$

(b) $\sum(2, 7, 8, 11, 14)$

(c) $\sum(2, 14)$

(d) $\sum(0, 2, 3, 5, 6, 7, 8, 11, 14, 15)$