## Minterms and Maxterms Expression

For the truth tables below, (A) express the minterm sum of products equation, and (B) express the maxterm product of sums equation.

## Part A

| A | B | C | $F_{(A, B, C)}$ |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 |

(A) $\mathrm{SOP}($ minterms $)=$ $\qquad$
(B) $\operatorname{POS}($ maxterms $)=$ $\qquad$

## Part B

| A | B | C | $F_{(A, B, C)}$ |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 |
| 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 |

(A) $\operatorname{SOP}($ minterms $)=$ $\qquad$
(B) POS (maxterms) $=$ $\qquad$
Part C

| A | B | C | Out |
| :---: | :---: | :---: | :---: |
| 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 |
| 0 | 0 | 1 | 1 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 0 |
| 1 | 1 | 1 | 0 |

(A) $\mathrm{SOP}($ minterms $)=$ $\qquad$
(B) POS (maxterms) $=$ $\qquad$

