

$$10011110 = 01100001 = \\ = (1 + 32 + 64) = \boxed{-97}$$

|    | AB   | CD | 00011110 |
|----|------|----|----------|
| 00 | 11   |    |          |
| 01 | 1    | 1  |          |
| 11 | 1    |    |          |
| 10 | 1111 | D  |          |

$$11100110 = 00011001 = \boxed{-25}$$

|   |   |    |    |
|---|---|----|----|
| 0 | 4 | 12 | 8  |
| 1 | 5 | 13 | 9  |
| 3 | 7 | 15 | 11 |
| 2 | 6 | 14 | 10 |

$$SOP \oplus [2, 6, 14, 10] = \underline{CD}$$

$$\textcircled{2} [1, 3] = \overline{A} \overline{B} D$$

$$\textcircled{3} [6, 14, 4, R] = \overline{B} \overline{D}$$

$$Sop = (CD + \overline{A} \overline{B} D + \overline{B} \overline{D})$$

|    | AB   | CD   | 00011110 |
|----|------|------|----------|
| 00 | 00   | 00   |          |
| 01 | 0000 | 0000 |          |
| 11 | 0000 | 0000 |          |
| 10 |      |      |          |

$$\textcircled{1} \overline{B} + \overline{D}$$

$$\textcircled{2} \overline{A} + \overline{D}$$

$$\textcircled{3} B + C + D$$

$$POS = (\overline{B} + \overline{D}) \cdot (\overline{A} + \overline{D}) \cdot (B + C + D)$$