

Ques: Using QM method identify all PIs for the following expression:

$$f(A, B, C, D) = \Sigma(1, 3, 4, 5, 9, 10, 11)$$

$$d(A, B, C, D) = \Sigma(6, 8)$$

Ques: (Row and Column Dominance) Consider the PI chart shown below:

| PI | m1 | m3 | m4 | m5 | m12 | m13 |
|-------------------|----|----|----|----|-----|-----|
| PI 1 ($A'B'D$) | ✓ | ✓ | | | | |
| PI 2 ($A'C'D$) | ✓ | | | ✓ | | |
| PI 3 ($A'B'C'$) | | | ✓ | ✓ | | |
| PI 4 ($B'C'D'$) | | | ✓ | | ✓ | ✓ |
| PI 6 ($B'CD$) | | ✓ | | | | |
| PI 7 (BD) | | | | ✓ | | ✓ |
| PI 8 (AB) | | | | | ✓ | ✓ |

- a) Identify row dominance and redundancy to eliminate rows
- b) Identify column dominance and redundancy to eliminate columns
- c) Iterate and obtain the minimal expression