

- Problem 5 (13 points)** Given two Boolean functions  $F_1 = B'D + A'B' + C'D$  and  $F_2 = A'D' + BC' + BD'$
- (a). (9 points) Find a minimum two-level multiple-output AND-OR circuit to realize  $F_1$  and  $F_2$ ;
  - (b). (4 points) Convert the realized circuit to a minimum two-level NOR-NOR circuit.