

Name: _____

Grade: _____

/10

- [2] 1) Find the minterm expansion of the following function using a K-map:

$$F(A,B,C,D) = \overline{A} \overline{B} \overline{C} + \overline{C} D + A D$$

F= _____

- [2] 2) Find the Maxterm expansion of the following function using a K-map:

$$F(A,B,C,D) = \overline{A} \overline{D} + B D + A B$$

F= _____

- [2] 3) Find the minimum sum-of-product expression for the following function using a K-map:

$$F = C \overline{B} + \overline{A} \overline{C} \overline{D} + \overline{C} \overline{B} D + A \overline{B} \overline{D} + A B \overline{C} \overline{D}$$

F= _____

- [2] 4) Find the minimum sum-of-product expression for the following function using a K-map:

$$F(A,B,C,D) = \sum m(0,2,5,7,8,13,15) + \sum d(6,9,10,12,14)$$

F= _____

- [2] 5) Find if the following two functions are logically equal using a K-map:

$$F = \overline{A} \overline{C} + A \overline{B} \overline{C} + A \overline{B} \overline{D} + A B C$$

$$G = \overline{A} \overline{C} \overline{D} + \overline{A} B \overline{C} + \overline{B} \overline{C} D + A \overline{B} + A B C D$$

Answer: _____

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