

Name: _____

Grade: **/10**

- [2] 1) Simplify the following function using the laws of Boolean algebra.

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

F= _____

- [4] 2) For the following given function, find the SOP and POS forms.

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

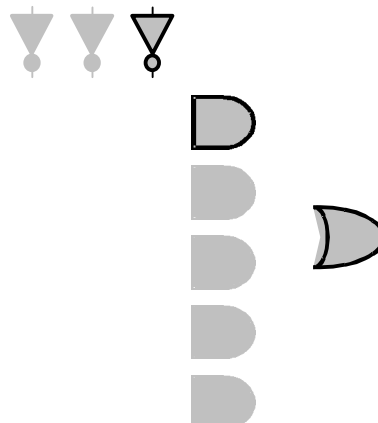
F (SOP)= _____

F (POS)= _____

= _____

- [4] 3) Write the Boolean Expression for function Z as defined by the following Truth Table. Implement function Z using a NOT-AND-OR network. (Please, use straight lines for connections. Use shaded areas to neatly draw your gates.)

ABC	Z
000	1
001	0
010	1
011	1
100	0
101	0
110	1
111	1



Z (from Table) = _____

Z (simplified) = _____